

# WORKING PAPER

# 8-01

## General and selective wage cost reduction policies in a model with heterogeneous labour



**Federal  
Planning Bureau**  
Economic analyses and forecasts

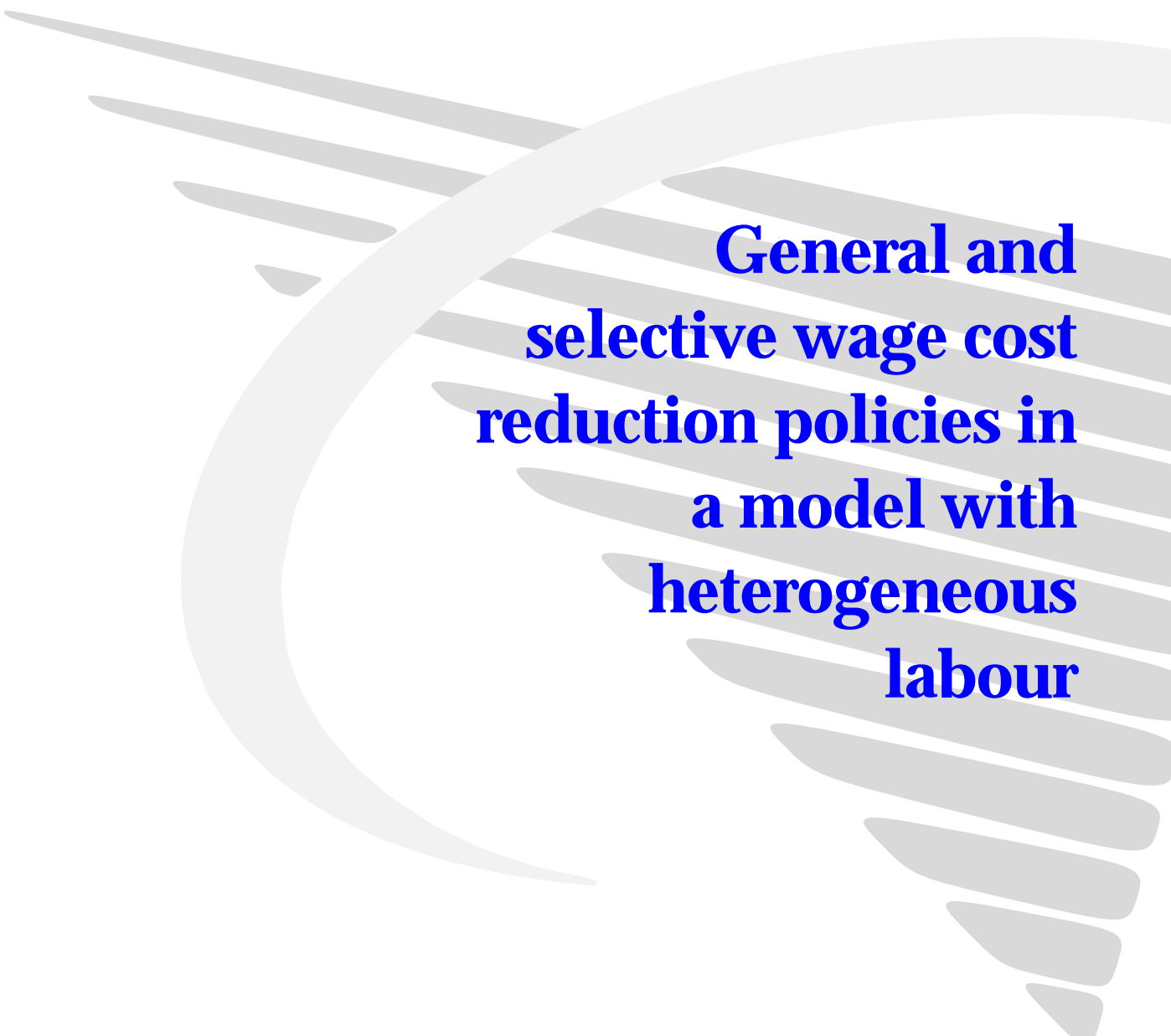
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December 2001



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## Abstract

This paper elaborates on the model-technical underpinnings of a DWTC-project (Agora, AG/64/020) jointly conducted by the Federal Planning Bureau (FPB/BFP) and the National Office of Social Security (RSZ/ONSS). In the 2001 vintage of the FPB's medium-term HERMES model, the substitution between low-wage, high-wage and special-programme labour is endogenous, allowing the assessment of both general and selective wage cost reduction policies. Both a version with wage benchmarks (in line with the 1996 Law on the preservation of competitiveness) and a version with freely negotiated wages are available. The simulation results are presented in Table 10 and 11 of section D (a comparison in general of the medium-term effects between policy measures), section G (a comparison in detail of the medium-term effects between policy measures), section H (the effects during transition and in the medium run in detail for each policy measure in a wage benchmark setting) and section I (the effects during transition and in the medium run in detail for each policy measure in a free wage setting). The general and selective measures are assessed by their impact on the disposable income of households, the profitability of firms, the government deficit (spending and revenue), employment (on aggregate and by category), consumption, and output (sectoral output and composition of aggregate demand).





## Heterogeneous labour in HERMES

### A. Three categories of endogenous labour

In an effort to promote the labour intensity of economic growth and to reduce the number in long-term unemployment and hence to increase the employment rate, the Belgian federal government has pursued a strategy of labour cost reduction since the early 1990s, either by reducing the level of social security contributions of employers in general or by stimulating low-wage employment and/or subsidizing the hiring of specific categories of labour in particular. A new development in labour market policy is to merge a number of existing wage cost reduction measures into a single 'structural measure'. The main effect is that white-collar and high-wage market sectors will gradually enjoy larger cost reductions, shifting labour demand away from low-wage and blue-collar sectors. In response to these developments in labour market policy, the FPB has upgraded HERMES, its macroeconomic model for medium-term forecasts and policy assessment, allowing the analysis of both general and selective labour market policies.

The modelling of labour in HERMES has gone through several stages. At first, labour was homogeneous and low-wage social security security reductions were treated as general reductions plain and simple. In a second stage, as from 1995, a low-wage submodel ('MILOU') was attached to HERMES, which generated relatively important employment effects by imposing higher than average wage elasticities on low-wage labour demand, ruling out substitution between low-wage and high-wage labour and imposing a high propensity to consume on low-labour income (Bréchet et al., 1995; Streel, 1999). Another development was the distinction between regular, which was endogenous, and a limited number of special-programme employment categories, which treated as exogenous. Now, a more sophisticated approach has been adopted.

The 2001 vintage of HERMES distinguishes between (endogenous) employment in the market sector (comprising both profit and non-profit sectors)<sup>1</sup>, and (exogenous) employment in the non-market sector (basically federal, regional and local government employment and a variety of minor subsidized employment programmes). The market sector employs '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 four major special employment programmes ('SP')<sup>2</sup>. The main distinction between the two 'regular' types of la-

1. The eleven 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') and transport and communications ('Z').
2. The mechanics discussed in Bossier et al. (2000) by and large apply to the 2001 vintage of HERMES as well. Because of the new modelling of heterogeneous labour in HERMES, paragraph III-B-2 (p. 15-18) in Bossier et al. (2000) is outdated.

hour and special labour is that the latter faces more regulatory constraints and that wage cost reduction measures targeting special labour are highly conditional.

## B. Four special-programme employment categories

Throughout the 1990s, the Belgian federal government has been proactive in the labour market, introducing a variety of policies, ranging from subsidizing additional jobs in the non-profit market sector ('Sociale maribel'/'Maribel social') to relief jobs aimed at the long-term unemployed and/or the low-skilled unemployed (of which the 'Dienstenbanen'/'Emplois service', the 'Plan-plus-1-plus-2-plus-3', and the 'Voordeelbanenplan'/'Plan avantage à l'embauche' are the best-known), which largely use wage subsidies or social security contribution exemptions. These subsidies and contribution exemptions are conditional on creating additional employment or meeting other regulatory conditions.

The wage subsidy in the non-profit market sector ('Sociale maribel'/'Maribel social') dates back to 1997 and equals a fixed amount per employee employed in a reference year and subsidises the wage bill of additional employment. The budget allocated to this measure has been allowed to grow over time by varying the fixed amount per employee in the reference year<sup>1</sup>. Because fixed amounts are granted per employee, the subsidy as percentage of the gross wage may vary over time.

The 'Dienstenbanen'/'Emplois service'-programme has been in effect since 1998 and is restricted to activities that do not belong to the normal business practices of a firm. Employees are exempt from employer social security contributions altogether and also receive a wage subsidy per head. 'Plan-plus-1-plus-2-plus-3' is restricted to the first three additional employees in start-up firms for up to 3 years. Employees are entitled to sizeable reductions in social security contributions (between 25% and 100%). 'Voordeelbanen'/'Emplois plan avantage à l'embauche' has been in effect since 1995. Employees are entitled to reductions similar in size as the 'Plan-plus-1-2-3'-jobs but may also receive a wage subsidy per head as from 2002.

The four special programmes discussed here account for more than 2% of full-time equivalent employment in the market sector, excluding agriculture and health care (Table 1).

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1. One should distinguish 'Sociale maribel'/'Maribel social' in a broad sense and a narrow sense. The broad concept refers to the total number of employed in the non-profit market sector which receive 'Sociale maribel'/'Maribel social' subsidies, accounting for about 400,000 jobs in 2000, mainly in health care. The narrow concept, amounting to 11,623 jobs in 2000, only includes that part of employment which is created relative to a reference year and which is fully subsidized with the wage subsidy.

**TABLE 1 - Importance of the special-employment programmes in the market sector**

	2000	2001	2002	2003	2004	2005	2006
Number of special jobs (*)	69537	74121	77838	80803	83300	85821	87691
Full-time equivalent wage earning labour (**)							
- high wages (% of total)	74.72	74.54	74.34	74.15	73.97	73.79	73.60
- low wages (% of total)	23.18	23.32	23.47	23.60	23.71	23.82	23.94
- special programmes (% of total) (**)	2.10	2.14	2.19	2.25	2.32	2.39	2.45

Based on the FPB's medium-term forecast of April 2001.

\* incl. health care, excl. agriculture, 'Sociale maribel'/'Maribel social' in the narrow sense.

\*\* excl. agriculture and health care, 'Sociale maribel'/'Maribel social' in the broad sense.

Health care jobs are excluded because they are mainly 'Sociale maribel'/'Maribel social' jobs anyway.

### C. Labour-specific wage cost rates

The wage cost rate in each labour segment depends on the gross wage rate, the employer social security contribution rate and the wage subsidy rate.

The government has been implementing the 'Structural measure' ('Structurele maatregel'/'Mesure structurelle') since 1999, which streamlines and expands separate schemes for wage cost reduction previously mainly aimed at low-wage workers ('Lageloonmaatregel'/'Mesure bas salaires') and/or blue-collar workers in the profit sector ('Maribel'). A methodology that combines the conditions for wage cost reductions spelled out in legislation, labour market data provided by the RSZ/ONSS and projections of sectoral wages and employment enables the FPB to compute accurate medium-term projections of the structural reductions by sector and wage category and its impact on employment<sup>1</sup>.

By its nature, the structural measure favours low-wage, part-time employment in the profit sector and discriminates against high-wage workers, full-time employment and the non-profit sector. Interestingly, the differential between blue-collar workers ('arbeiders'/'ouvriers') - who used to benefit more from reductions in social security contributions prior to the structural measure - and white-collar workers ('bedienden'/'employés') will be reduced by the time the structural measure is implemented fully in 2004<sup>2</sup>. As opposed to the earlier social contribution reduction programmes, the structural measure covers the non-profit market sector, mainly health care, as well, but at less generous terms than in the profit sector<sup>3</sup>.

1. The methodology is spelled out in detail in Stockman P. (2001), *Een methodologie voor de ex ante berekening van de structurele bijdragevermindering*, Federal Planning Bureau, ADDG, 6283.
2. Belgium is one of the few countries where both labour market legislation and social security legislation still differentiate between blue-collar and white-collar workers, ignoring that the economics of the service industry and the introduction of high tech are blurring increasingly the distinction between the two categories on the workforce.
3. Note that a considerable part of the non-profit market sector is entitled to additional wage cost reductions through the 'Sociale Maribel'-'Maribel social'-measure.

**TABLE 2 - Main characteristics of the ex ante structural reduction in the market sector**  
(billions of BEF unless indicated otherwise)

	2000	2001	2002	2003	2004	2005	2006
Ex ante structural reduction	91.4	106.4	115.4	122.7	131.3	134.8	135.3
- low wages (excl. health care) (*)	34.8	36.5	36.9	35.9	36.1	36.9	36.6
- high wages (excl. health care) (*)	51.5	64.5	73.2	81.5	89.8	92.5	93.3
- health care (*)	5.2	5.3	5.3	5.4	5.4	5.4	5.4
% of total (incl. health care)							
- agriculture	1.09	1.03	0.98	0.96	0.94	0.99	1.05
- manufacturing and energy	32.62	32.60	32.07	31.96	31.46	31.14	30.73
- services and construction	66.30	66.37	66.95	67.08	67.60	67.86	68.22
Percentage fall in wage cost (in %) (*) and (**)							
- high wages (excl. health care and agriculture)	1.70	2.03	2.20	2.34	2.47	2.43	2.34
- low wages (excl. health care and agriculture)	6.47	6.43	6.17	5.69	5.45	5.28	4.97
Effect of non indexation of the structural measure	0.0	-3.8	-4.2	-5.8	-6.2	-6.3	-7.2

\* Because health care jobs are mainly 'Sociale maribel'/'Maribel social' jobs, an aggregate figure for health care is presented here.

\*\* The FPB does not model labour-specific wage bills for agriculture.

Moreover, because the structural measure is neither inflation-adjusted nor welfare-adjusted, wage increases reduce the share of reductions allotted to low-wage labour while the total amount of reductions tends to level off (Table 2)<sup>1</sup>. Even so, the reduction in wage cost remains stronger for low-wage labour. Notice that leaving the structural measure unadjusted for inflation and real wage increases reduces the ex ante reduction by 7.2 billion BEF in 2006. Also, not all sectors benefit from the structural measure to the same extent. There is a distinct shift away from manufacturing to services due to the decline of manufacturing and the less unequal treatment of white-collar workers.

Because the special employment programmes have basically remained unchanged, their (implicit) social security contribution rates are assumed constant over time in the 2001-2006 macroeconomic forecast. However, the subsidy rates are allowed to vary over time for reasons explained before.

1. HERMES implicitly indexes the cut-off line between low-wage and high-wage labour.

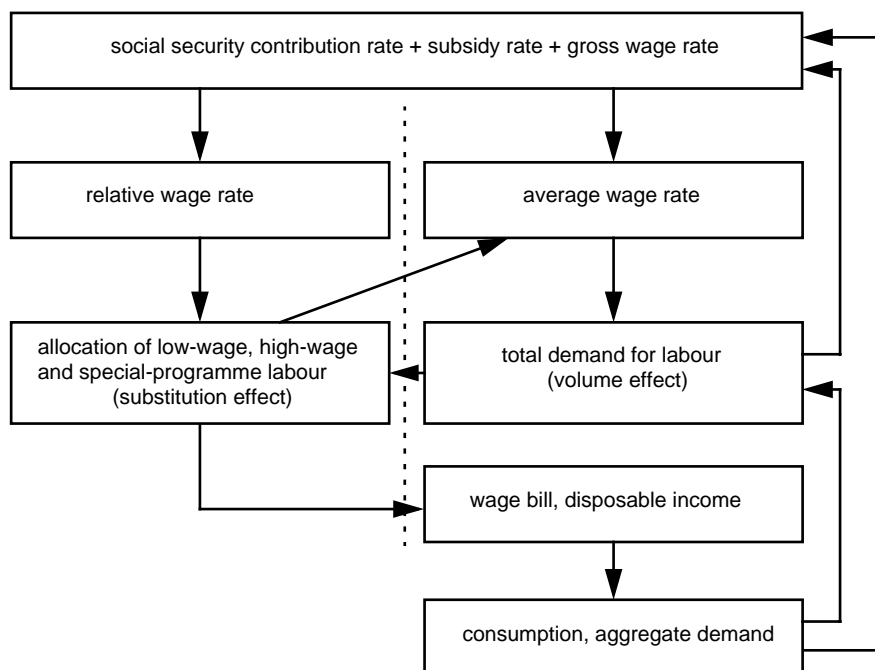




## Modelling substitution in the Belgian labour market

### A. Modelling heterogeneous labour in HERMES

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 two stages (see the figure below). Firstly, aggregate demand and the average cost of labour relative to other factor prices determine total demand for labour. Secondly, total demand for labour is allocated among the three subcategories of labour, pending on relative wage costs. The composition of labour demand 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.



## B. Translog-based substitution

One of the most general approaches to substitution is translog-based substitution. 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):

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

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 means 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:

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

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

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>.

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, (5a) rather than (4a) will be used in combination with (5b) and (5c):

$$(5a) n = n_{HL} + n_{SP} + n_{LL} ; (5b) = (4b); (5c) = (4c)$$

---

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:

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

## C. Calibration

Table 3 reports the translog parameters obtained from calibrating 1999 data, using (4a), (4b) and (4c)<sup>1</sup>. Except for health care (SA), the translog parameters are quite similar across sectors. The translog aggregate has the drawback that the economic interpretation of the translog parameters is not straightforward.

**TABLE 3 - Translog substitution parameters in the labour market by sector**

	B	C	CR	E	HA	K	OS	Q	SA	Z
$\gamma$	-0.009456	-0.013058	-0.004677	-0.008084	-0.015417	-0.005285	-0.013957	-0.005434	-0.029856	-0.032955
$\alpha_{HL}$	1.014770	0.935510	1.015150	1.015170	0.855600	1.006520	0.877740	1.006480	0.848780	0.920410
$\alpha_{SP}$	-0.018046	-0.089939	-0.026296	-0.056822	-0.096394	-0.035165	-0.090963	-0.033060	0.251000	-0.096223

B = construction, C = consumer goods, CR = finance, E = energy, HA = trade and restaurants, K = capital equipment, OS = other market services, Q = intermediate inputs, SA = health care, Z = transport and communications.

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

Table 4 shows the compensated price elasticities and Allen's elasticities of substitution for each sector. The compensated price elasticities by and large do not add up to zero, hence illustrating that the translog aggregator is not homothetic.

Allen's elasticities of substitution indicate that LL, HL and SP are mostly substitutes. The exceptions are LL and SP in those sectors where special employment matters least i.e manufacturing (C, K, Q), financial services (CR), energy (E), construction (B) and transport and communications (Z). Anyhow, since the own price elasticities are larger than the cross-price elasticities (in absolute terms), relative demand for the factor which becomes more expensive will fall even if there is complementarity.

In most sectors, SP has got the largest own price elasticity, HL has got the smallest, and LL has got an own price elasticity somewhat smaller than SP. The exception is health care (SA), for which the own price elasticity of LL is the largest. Symmetry between the Allen's elasticities of substitution holds for the combination SP-LL, except in other services (OS) and health care (SA).

1. Quarterly gross wages less than 189,000 BEF (in 2000 prices) are considered low wage. Equations (4b) and (4c) are in full-time equivalent terms. The data set is described in detail in Stockman (2001), *Project Agora over sociale zekerheidsbijdragen: Een technische nota i.v.m. databeheer, modellering en website-ontwikkeling*, Federal Planning Bureau, ADDG, 6282. The empirical results in that paper are no longer valid.

**TABEL 4 - Labour demand: Compensated price elasticities and Allen's elasticities of substitution by sector**

	Compensated elasticities				Allen's elasticities of substitution		
	WLL	WHL	WSP	ADDING-UP	WLL	WHL	WSP
<b>Sector B</b>							
n <sub>LL</sub>	-0.73694	0.80175	-0.07551	-0.01070	-17.82668	0.86250	-2.59462
n <sub>HL</sub>	0.06196	-0.11063	0.04150	-0.00717	1.49885	-0.11902	1.42599
n <sub>SP</sub>	-0.10250	0.79524	-0.70497	-0.01223	-2.47939	0.85551	-24.22220
<b>Sector C</b>							
n <sub>LL</sub>	-0.66501	0.65744	-0.00898	-0.01655	-4.05582	0.79562	-0.92528
n <sub>HL</sub>	0.22142	-0.24948	0.01338	-0.01468	1.35042	-0.30192	1.37833
n <sub>SP</sub>	-0.13554	0.53373	-0.43111	-0.03292	-0.82664	0.64591	-44.40158
<b>Sector CR</b>							
n <sub>LL</sub>	-0.80298	0.85398	-0.05953	-0.00853	-33.25712	0.87831	-16.74050
n <sub>HL</sub>	0.05728	-0.07160	0.00936	-0.00496	2.37225	-0.07364	2.63176
n <sub>SP</sub>	-0.39454	0.82234	-0.44753	-0.01973	-16.34079	0.84577	-125.85300
<b>Sector E</b>							
n <sub>LL</sub>	-0.81091	0.81050	-0.00988	-0.01029	-24.48173	0.83864	-23.01801
n <sub>HL</sub>	0.08029	-0.08782	0.00111	-0.00642	2.42403	-0.09087	2.58500
n <sub>SP</sub>	-0.69045	0.72917	-0.05853	-0.01981	-20.84490	0.75449	-136.37302
<b>Sector HA</b>							
n <sub>LL</sub>	-0.54450	0.51589	0.00894	-0.01967	-2.27231	0.69699	0.44206
n <sub>HL</sub>	0.34114	-0.38712	0.02755	-0.01843	1.42367	-0.52302	1.36313
n <sub>SP</sub>	0.13644	0.38200	-0.55049	-0.03205	0.56940	0.51611	-27.23486
<b>Sector K</b>							
n <sub>LL</sub>	-0.82506	0.85322	-0.03630	-0.00814	-20.44775	0.89209	-11.26770
n <sub>HL</sub>	0.06472	-0.07588	0.00557	-0.00559	1.60401	-0.07934	1.72884
n <sub>SP</sub>	-0.44289	0.81240	-0.39119	-0.02168	-10.97631	0.84941	-121.43562
<b>Sector OS</b>							
n <sub>LL</sub>	-0.57119	0.54773	0.00407	-0.01939	-2.63622	0.71570	0.22582
n <sub>HL</sub>	0.31635	-0.35853	0.02414	-0.01805	1.46005	-0.46848	1.33896
n <sub>SP</sub>	0.09627	0.42125	-0.54943	-0.03191	0.44432	0.55043	-30.48161
<b>Sector Q</b>							
n <sub>LL</sub>	-0.80779	0.84171	-0.04252	-0.00860	-19.26355	0.88343	-8.04337
n <sub>HL</sub>	0.07101	-0.08679	0.00959	-0.00619	1.69340	-0.09110	1.81439
n <sub>SP</sub>	-0.33007	0.80628	-0.49586	-0.01965	-7.87139	0.84624	-93.80183
<b>Sector SA</b>							
n <sub>LL</sub>	-0.56276	0.49690	0.04153	-0.02433	-10.43352	0.73692	0.15282
n <sub>HL</sub>	0.06575	-0.30013	0.21946	-0.01492	1.21901	-0.44510	0.80755
n <sub>SP</sub>	0.03842	0.56866	-0.62345	-0.01637	0.71237	0.84333	-2.29411
<b>Sector Z</b>							
n <sub>LL</sub>	-0.65526	0.64543	-0.00731	-0.01714	-3.65903	0.79298	-1.04665
n <sub>HL</sub>	0.23734	-0.26203	0.00933	-0.01536	1.32533	-0.32193	1.33638
n <sub>SP</sub>	-0.16539	0.49285	-0.36352	-0.03606	-0.92356	0.60552	-52.06510

$n_i$  is employment;  $w_i$  is the wage cost rate.

The sectors have been previously defined - see footnote p. 2.

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

Table 5 shows the elasticities of factor proportions ( $n_i/n_j$ ) w.r.t. relative wage rates ( $w_i/w_j$ ), which were obtained by simulating the effect of an increase in one particular wage rate, holding other wage rates and total employment constant. For each wage rate, two simulations were executed: a 10% and a 20% increase in  $w_j$ . Although strictly not elasticities of substitution, these elasticities do give a good picture of the intra substitutability of labour.

**TABEL 5 - Elasticities of factor proportions to relative wage rates**

Sector	i=HL j=LL	i=SP j=LL	i=LL j=HL	i=SP j=HL	i=HL j=SP	i=LL j=SP
$(\Delta w_j)/w_j = 10\%$						
B	-0.9149	-0.7205	-1.0508	-1.0430	-0.8525	-0.7147
C	-1.0196	-0.5981	-1.0443	-0.8962	-0.5000	-0.4743
CR	-0.9882	-0.4586	-1.0667	-1.0286	-0.5142	-0.4352
E	-1.0253	-0.1333	-1.0339	-0.9364	-0.0658	-0.0536
HA	-1.0187	-0.7751	-1.0395	-0.8794	-0.6546	-0.6329
K	-1.0236	-0.4285	-1.0710	-1.0218	-0.4452	-0.3974
OS	-1.0209	-0.7593	-1.0435	-0.8921	-0.6494	-0.6260
Q	-1.0104	-0.5382	-1.0703	-1.0276	-0.5703	-0.5102
SA	-0.7136	-0.6816	-0.9126	-0.9984	-0.9674	-0.7564
Z	-1.0270	-0.5523	-1.0449	-0.8625	-0.4179	-0.3989
$(\Delta w_j)/w_j = 20\%$						
B	-0.9925	-0.7737	-1.1429	-1.1337	-0.9233	-0.7687
C	-1.1098	-0.6321	-1.1358	-0.9635	-0.5393	-0.5110
CR	-1.0753	-0.4819	-1.1612	-1.1162	-0.5548	-0.4677
E	-1.1174	-0.1353	-1.1229	-1.0089	-0.0716	-0.0583
HA	-1.1084	-0.8295	-1.1307	-0.9455	-0.7064	-0.6824
K	-1.1148	-0.4481	-1.1662	-1.1082	-0.4804	-0.4278
OS	-1.1110	-0.8117	-1.1351	-0.9597	-0.7008	-0.6749
Q	-1.0997	-0.5685	-1.1654	-1.1151	-0.6152	-0.5488
SA	-0.7706	-0.7349	-0.9849	-1.0842	-1.0507	-0.8108
Z	-1.1181	-0.5808	-1.1366	-0.9247	-0.4509	-0.4300

In the case of  $(\Delta w_j)/w_j = 10\%$ , the 'elasticities of substitution' are pretty high in most sectors: about 1.00 between LL and HL, 0.45-0.75 between LL and SP, and 0.40-1.00 between HL and SP. In the case of  $(\Delta w_j)/w_j = 20\%$ , the 'elasticities of substitution' are even higher, indicating that the substitutability is rising with the magnitude of the wage shock. Taking in account that - ceteris paribus - the wage cost rates are anticipated to fall by far less than 10% in 2001-2006 (see Table 2), the relevant range of 'elasticities of substitution' is bound to be smaller than suggested by the '10%-simulation' reported in Table 5 and probably less than one. The implication of an elasticity of substitution smaller than one is that the share in total labour cost of the factor of which the cost has risen, will rise.

## F. The empirical literature on substitution in the labour market

Differences in datasets (different countries, sectors, micro- or macrodata) and specifications (functional specifications, measurement in efficiency units, with or without technological progress, direct or indirect substitution with other factors) complicate the comparison of empirical studies. However, it emerges that the elasticities established in HERMES are in line with the empirical literature.

The JADE-model for the Netherlands assumes a two-stage allocation process. The first stage determines the choice between labour and other production factors. The second stage determines the allocation between low-skilled and high-skilled labour at an elasticity of substitution larger than one (Centraal Planbureau, 1997, 18).

A similar approach is adopted by Graafland and de Mooij (1999) in the Centraal Planbureau's MIMIC-model: their calibration of demand for unskilled, low-skilled and high-skilled labour in the Netherlands rests on elasticities of substitution estimated by Draper and Manders (1996). They work with elasticities of substitution as high as 1.1 (internationally competing market sector), 2.0 (internationally non-competing market sector) and 1.5 (non-market sector).

Another example for the Netherlands is Hebbink (1991). Two CES-aggregates are allocated in a two-step procedure. The first one is an aggregate of capital and one age group of labour, allowing for direct substitution between that particular age group and capital. The other is a CES-aggregate of two other age groups, without direct substitution between these two age groups and capital. The intra-elasticity of substitution between the two age groups belonging to the second CES-aggregate varies between 0.74 and 2.40.

Manacorda and Petrongolo (1999; 192) find a 1.057 estimate for the a CES-elasticity of substitution between skilled and low-skilled labour for France, Italy, the Netherlands, Great-Britain, Germany and the USA.

Sneessens's survey (1998; 17-20) reports diverging estimates for the elasticity of substitution between high-skilled and low-skilled labour, varying between 0.0 (Card et al, 1996), over 0.5 (Shadman and Sneessens, 1995), 1.0 (Manacorda and Petrongolo, 1996) and 1.5 (Drapers and Manders, 1996; Krusell et al, 1997) to 3.0 (Drapers and Manders, 1996).







## Two baselines

### A. Substitution in the 2001-2006 baseline forecast with wage benchmarking

At present, gross wage setting is not free but subjected to a government-imposed benchmark on the wage cost rate (and not on the gross wage rate). One major caveat is that the present state of modelling does not automatically internalize the effect of additional wage cost reductions on the gross wage rate and tends to overstate the macroeconomic effect of wage cost reducing labour market policies. Why? When negotiating the gross wage rate, employers and employees take in account the maximum wage cost rate imposed by the government and wage cost reducing labour market policies. Hence, to the extent additional wage cost reducing measures are anticipated, they tend to be absorbed by increases in the gross wage rate. Whereas the baseline medium-term forecast takes into account this feedback (by adjusting the exogenous growth rate of the real gross wage rate), variations of the baseline forecast do not.

In the 2001-2006 forecast, the same government-sanctioned benchmark ('loon-norm'/'norme salariale') is imposed on the gross wage rate of all labour categories, implying that changes in relative wage cost rates are due to different patterns in social security contribution rates and wage subsidy rates over time. This is illustrated in the Tables 6 and 7, showing the year-to-year changes in the relative wage cost and the factor proportions in 2001-2006. High-wage labour is becoming cheaper, triggering - by and large - an increase in high-wage employment relative to low-wage employment, except in the energy sector (E), health care (SA) and transportation (Z). On the whole, low-wage labour is becoming more expensive relative to the special employment categories, producing an increase in special employment relative to low-wage labour in most sectors (but not in the energy sector and health care). Because the average gross wage rate is determined bottom-up, the average wage cost rate does not necessarily observe the same wage rate growth as the labour-specific gross wage rates if relative demand changes in the labour market.

**TABLE 6 - Year-to-year change in the full-time equivalent wage cost ratio and factor ratio of high-wage labour relative to low-wage labour by market sector**

market sector	2001	2002	2003	2004	2005	2006
Year to year change in high-wage full-time equivalent employment relative to low-wage full-time equivalent employment						
B	0.0150	0.0055	0.0027	0.0086	-0.0062	-0.0073
C	-0.0018	0.0013	0.0062	0.0095	0.0078	0.0092
CR	0.0169	0.0129	0.0082	0.0026	0.0053	-0.0229
E	0.1459	0.1478	0.1684	0.1740	0.1108	0.0975
HA	0.0006	0.0009	0.0024	0.0029	0.0028	0.0015
K	-0.0031	0.0053	0.0085	0.0298	0.0217	0.0238
OS	-0.0018	-0.0012	-0.0002	0.0004	-0.0002	0.0008
Q	0.0107	0.0386	0.0361	0.0307	0.0323	0.0313
SA	-0.1269	-0.0767	-0.0430	-0.0156	-0.0086	-0.0254
Z	-0.0131	-0.0111	-0.0102	-0.0101	-0.0110	-0.0106
Year to year change in the high-wage full-time equivalent wage rate relative to the low-wage full-time equivalent wage rate						
B	-0.0029	-0.0041	-0.0055	-0.0057	-0.0032	-0.0018
C	-0.0001	-0.0024	-0.0041	-0.0060	-0.0047	-0.0048
CR	-0.0055	-0.0002	-0.0025	-0.0003	-0.0008	0.0050
E	-0.0057	-0.0023	0.0009	0.0032	0.0042	0.0075
HA	-0.0018	-0.0024	-0.0051	-0.0056	-0.0056	-0.0037
K	0.0003	-0.0019	-0.0032	-0.0047	-0.0028	-0.0030
OS	0.0008	0.0000	-0.0015	-0.0022	-0.0015	-0.0028
Q	-0.0003	-0.0035	-0.0049	-0.0044	-0.0046	-0.0037
SA	0.0098	0.0001	-0.0099	-0.0184	-0.0217	-0.0140
Z	0.0004	0.0003	-0.0013	-0.0019	-0.0020	-0.0020

**TABLE 7 - Year-to-year change in the full-time special programme wage cost ratio and factor ratio of high-wage labour relative to low-wage labour by sector**

market sector	2001	2002	2003	2004	2005	2006
Year to year change in special programme full-time equivalent employment relative to low-wage full-time equivalent employment						
B	-0.00082	0.00193	0.00443	0.00301	0.00426	0.00359
C	0.00038	0.00056	0.00030	0.00017	0.00017	-0.00006
CR	0.00036	-0.00023	0.00032	0.00008	0.00008	0.00000
E	-0.00066	-0.00070	-0.00082	-0.00087	-0.00057	-0.00056
HA	0.00047	0.00059	0.00084	0.00067	0.00078	0.00076
K	0.00007	0.00028	0.00054	0.00018	0.00010	0.00008
OS	0.00055	0.00059	0.00068	0.00060	0.00067	0.00070
Q	-0.00038	-0.00051	0.00025	0.00014	0.00023	0.00005
SA	-0.04045	-0.02337	-0.01127	-0.00132	0.00167	-0.00465
Z	0.00573	0.00593	0.01041	0.00950	0.01039	0.01010

market sector	2001	2002	2003	2004	2005	2006
Year to year change in the special programme full-time equivalent wage rate relative to the low-wage full-time equivalent wage rate						
B	0.00013	-0.00283	-0.01234	-0.00836	-0.00966	-0.00923
C	-0.00131	-0.00511	-0.01155	-0.00870	-0.00981	-0.01003
CR	-0.00167	-0.00134	-0.00436	-0.00216	-0.00238	-0.00098
E	0.00124	-0.00647	-0.01830	-0.01245	-0.01256	-0.01107
HA	-0.00357	-0.00346	-0.00537	-0.00345	-0.00553	-0.00539
K	-0.00143	-0.00490	-0.01072	-0.00778	-0.00857	-0.00882
OS	-0.00129	-0.00232	-0.00522	-0.00327	-0.00489	-0.00596
Q	0.00085	-0.00467	-0.01250	-0.00831	-0.01007	-0.00959
SA	0.01115	0.00068	-0.01003	-0.01913	-0.02287	-0.01492
Z	0.00121	-0.00177	-0.01256	-0.00890	-0.00975	-0.00930

## B. The 2001-2006 baseline forecast with free wages

### 1. Macro-economic feedback

The labour-specific gross wage rates within each sector are subjected to macro-economic feedback (through mainly a Philips curve effect, via the unemployment rate, and sectoral and macroeconomic productivity)<sup>1</sup>. Macroeconomic productivity depends on aggregate employment and demand; sectoral productivity depends on sectoral employment and sectoral demand, reflecting consumer preferences and differences in input-output linkages, investment demand and export orientation.

Sectoral differences in parameters can be quite huge, as the table below (retrieved from Bossier et al., 2000, 23) indicates<sup>2</sup>. Gross wages are particularly sensitive to the unemployment rate in capital equipment manufacturing, construction and agriculture, but not in the energy and financial sector. Productivity matters particularly in the energy sector but only moderately in construction and the transport-cum-telecom sector and hardly in agriculture, trade, capital equipment manufacturing and the financial sector. Importantly, of those sectors where productivity matters, the energy sector is the only one where macroeconomic contagio prevails.

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 'w̄<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:

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

2. One should bear in mind that a lot of parameters in the wage equations are imposed, not freely estimated.

**TABLE 8 - Gross wage equations: Phillips effect, productivity effect and macroeconomic contagion**

	A	B	C	CR	E	HA	K	OS	Q	SA	Z
Unemployment effect (Phillips-effect)	-0.98	-1.30	-0.78	-0.13	0.00	-0.60	-1.46	-0.82	-0.31	-0.60	-0.62
Productivity effect	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 the productivity effect	0.50	0.20	0.31	0.32	0.62	0.20	0.75	0.10	0.15	0.10	0.20

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.

## 2. Caveat: A proper free-wage baseline?

Three points of criticism, relating to the computation of social security rates and the modelling of gross wages can be raised at the free-wage baseline as it stands now.

First, the baseline social security rates are computed from a forecast of the ex ante reduction, which itself is based on wages and employment obtained from a previous HERMES version with a wage-benchmark regime. Those social security rates probably understate the true rates prevailing in a free-wage regime. This follows from overestimating the reduction in social security contribution rates. On the one hand, the ex ante reduction in a free-wage setting should be smaller for two reasons. Indeed, with gross wage rates higher in the free-wage regime and because of the bias of the structural measure in favour of low wages, the ex ante reduction per employee will be smaller in size. Moreover, employment in a free-wage setting is smaller. On the other hand, the free-wage regime's gross wage bill is probably higher in spite of lower employment. A smaller ex ante reduction (in the denominator) and a higher gross wage bill (in the nominator) together amount to a lower reduction in the social security contribution rate.

Second, hangover dating from before 2001 has been neutralized in both baselines in the sense that the wage rates prior to 2001 are set equal to the observed rates. This matters because lagged responses by demand for labour of up to four years are not properly accounted for in the early years of the simulation period.

Third, gross wages respond to the gap between average labour productivity (defined as output divided by employment) and the lagged gross wage rate relative to the output price index whereas microeconomic theory rather imposes the condition that the long-run equilibrium real wage cost rate equal marginal labour productivity. The productivity effect being a weighted average of sector-specific average productivity and economy-wide average productivity, intersectoral contagion is a distinct possibility. Moreover, it is assumed that labour market pressure translate into the three labour categories to the same degree, not too heroic an assumption if general wage cost cutting measures are implemented, but less realistic in the face of selective policies<sup>1</sup>.

1. The thing is that time series span too short a horizon to allow the estimation of labour-specific wage rate equations.

Though the free-wage version of HERMES has not been tested thoroughly yet, the free-wage policy simulations still serve as a reminder of the labour market pressures that might arise from wage cost reducing policies.

### 3. Caveat: Differences in wage-regime specific baselines?

The free-wage and wage-benchmark baselines are different in income and employment levels. The free-wage baseline generates less employment but higher labour productivity. This matters because the same increase in output requires a higher increase in employment in a wage-benchmark regime than in a free-wage regime. Therefore, one cannot dismiss the possibility that wage cost reductions produce a larger impact on GDP in a free-wage regime than in a wage-benchmark regime, albeit starting from lower GDP levels.

Table 9 shows the main differences between the two baselines. Freeing wages reduces employment and GDP, raises prices, boosts private consumption and investment at the expense of net exports. Average labour productivity is higher because the percentage fall in employment is higher than the percentage fall in GDP. The larger gross wage bill raises income taxes and social security contribution; higher private consumption raises indirect taxes. Hence the government surplus receives an additional boost of 0.6% of GDP by 2006 despite the fall in corporate taxes<sup>1</sup>.

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1. In Table 9, <vrij-basis.var> refers to the free-wage baseline; <norm-basis.var> refers to the wage-benchmark baseline. The difference in level between the two baselines could be removed by forcing the free-wage baseline on the time path of the wage-benchmark baseline by means of well-chosen corrections in the wage equations.

**TABLE 9 - Difference between the free-wage baseline and the wage-benchmark baseline (2001-2006)**

(absolute differences with baseline - billions of BEF)	Government finances					
	01[4-2]	02[4-2]	03[4-2]	04[4-2]	05[4-2]	06[4-2]
1. Surplus	-0.019	12.492	28.900	45.789	65.005	85.151
- p.m.: surplus as % of GDP	0.000	0.114	0.249	0.374	0.503	0.626
2. Receipts	-0.734	15.336	39.989	68.326	101.365	137.079
- of which direct taxes on non-corporate income	-0.061	8.191	20.728	35.740	52.420	70.193
- of which direct taxes on corporate income	-0.447	-4.140	-9.147	-14.842	-20.681	-26.961
- of which indirect taxes	0.367	2.761	6.278	10.006	14.990	20.514
- of which social security contributions	-0.548	8.383	21.629	36.483	53.127	71.171
3. Expenditure excl. interest payments	-0.689	2.999	11.867	24.698	40.882	59.922
- of which government operating costs	-0.146	0.318	1.713	3.792	6.511	9.756
- of which pension entitlements	-0.133	0.245	1.365	3.015	5.159	7.718
- of which health care	0.000	0.064	0.564	1.556	2.975	4.789
- of which unemployment entitlements	-0.358	0.953	3.597	7.406	12.001	17.361
- of which current transfers to firms	-0.001	0.062	0.221	0.490	0.809	1.190
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.000	0.000	-0.027	-0.029	-0.054	-0.075
4. Interest payments	-0.027	-0.155	-0.778	-2.161	-4.521	-7.994

[2] c:/usr/frame/eigen/agora/norm-basis.var

[4] c:/usr/frame/eigen/agora/vrij-basis.var

differences as % of baseline	Production and expenditure					
	01[4/2]	02[4/2]	03[4/2]	04[4/2]	05[4/2]	06[4/2]
AGGREGATE DEMAND AND PRODUCTION (constant prices)						
- Private consumption	0.008	0.102	0.222	0.297	0.438	0.567
- Gross capital formation	0.028	0.127	0.236	0.281	0.297	0.271
- Domestic absorption	-0.003	0.040	0.088	0.090	0.127	0.147
- Exports of goods and services	0.012	0.007	-0.018	-0.064	-0.120	-0.181
- Imports of goods and services	0.012	0.048	0.090	0.105	0.132	0.145
- GDP	-0.003	0.000	-0.021	-0.085	-0.144	-0.215
PRICES						
- Private consumption	-0.015	0.026	0.140	0.300	0.498	0.719
- GDP-deflator	-0.033	0.078	0.291	0.559	0.868	1.200
LABOUR MARKET						
- Employment	0.033	-0.085	-0.305	-0.609	-0.956	-1.343
- Unemployment	-0.226	0.597	2.182	4.421	7.154	10.348
- Real wage cost per employed (market sector)	0.057	0.850	1.920	3.085	4.295	5.538

[2] c:/usr/frame/eigen/agora/norm-basis.var

[4] c:/usr/frame/eigen/agora/vrij-basis.var

(/) Growth Rates



## Additional wage cost reductions

### A. Limitations and caveats

#### 1. Normal and special employment

Because HERMES is fine-tuned for normal year-to-year changes, additional wage cost reductions (see variable 'EX ANTE' in Table 10 and 11) had better be confined to modest amounts. Four additional wage cost reductions - ex ante all roughly similar in size - will be discussed: (1) a decrease in low-wage social security contribution rates, ex ante equivalent to 0.05% of GDP in 2001 ('LL'), (2) a decrease in high-wage social security contribution rates, ex ante equivalent to 0.05% of GDP in 2001 ('HL'), (3) a decrease in low-wage and high-wage social security contribution rates, ex ante equivalent to 0.05% of GDP in 2001 ('LL+HL'), and (4) a general decrease in the employer social security contribution rate on the special-programme wage bill by 2.5% (the subsidy rates are kept unchanged)('SP').

The ex ante wage cost reduction aimed at normal employment ('LL', 'HL', 'LL+HL') is constant over time and allocated between sectors and labour categories by the weight in the gross wage bill. This translates in decreases in social security rates that are equal across sectors in all cases and equal across low-wage and high-wage labour in the case of 'LL+HL'. Moreover, because the amounts injected are constant in time, the fall in social security rates decreases over time.

#### 2. Subcategories of special employment

Four other wage cost reduction measures, aimed at subcategories within the aggregate of special-employment programmes, are presented as well: (1) an increase in the wage subsidy by 5000 BEF per relief job per month (whether 'Dienstbanen'/'Emplois service' or 'Voordeelbanen'/'Emplois avantage à l'embauche') ('DB+VB') as from 2002, (2) an increase in the non-profit sector wage subsidy by 2500 BEF per quarter per head in a reference year ('SM'), (3) a selective decrease in the employer social security contribution rate on the 'Plan-plus-1-2-3' wage bill by 2.5% ('PP'), and (4) a selective decrease in the employer social security contribution rate on the 'Voordeelbanen'/'Emplois avantage à l'embauche' wage bill by 2.5% ('VB').

Importantly, increases in the wage subsidies to special labour may prove very expensive for two reasons: (1) both existing and additional special-programme jobs are subsidized at the higher wage subsidy rate, (2) the additional special-pro-

gramme jobs barely generate social security income to the government at all because of the low social security contribution rates on the special-programme wage bill.

A technical snag is that HERMES is not well-suited to deal with these 'hyperselective' measures for several reasons. The first is that the share of each special programme in total special employment is exogenous (in fact kept constant at the 1999 observation). Any hyperselective measure loses its distinctiveness since it feeds into the model through the total special-programme wage subsidy or total special-programme social security rate. The second is that a number of special-programme related variables are massaged in order to equal the observations in 2000. Hence, these variables do not necessarily behave sensibly in a policy simulation, even if they do in the benchmark simulation<sup>1</sup>. The third caveat is that sectoral symmetry in the change of subsidy or contribution rates is lost because the special programmes have got different weights in total special employment. E.g. 'plan-plus' and 'voordeelbanen' have got a negligible weight in health care whereas 'Sociale Maribel' jobs hardly prevail in sectors other than health care. Having these caveats in mind, we will only comment briefly on their impact on employment and their net cost per additional job.

### 3. Two sets of policy simulations

Two sets of simulations are presented<sup>2</sup>. The first set assumes the same government-sanctioned benchmark on gross wage rates as in the medium-term baseline forecast. The net effects on employment and production are overstated because the cost reduction measures are not allowed to feed into gross wages for reasons explained before.

The second set leaves the gross wage rates free to react to macroeconomic pressures. Whether this reduces the scope for an increase in jobs and output in comparison with the first set depends on three effects: (1) whether the fall in consumer inflation is smaller in a free-wage setting than in a wage-benchmark setting, (2) the magnitude of the fall in the unemployment rate and by how much sectoral gross wage rates are sensitive to the unemployment rate, and (3) the magnitude of the (lagged) fall in productivity and by how much sectoral gross wage rates are sensitive to productivity<sup>3</sup>.

Whether the strain on public finances in absolute terms or in terms of net cost per additional job is higher or smaller in comparison with the first set is uncertain. On

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1. This is particularly true for NMARSOY ('Sociale Maribel' employment that is additionally created and fully subsidized with the 'Sociale Maribel' wage subsidy), MSOC (the 'Sociale Maribel' wage subsidy), USMET ('Dienstenbanen' employment) and WSMETF3 (the 'Dienstenbanen' wage subsidy).
  2. The tables in sections G, H and I refer to the following files: [1] <norm-basis.var> is the baseline with wage benchmarking; [2] <norm-LL.var>, [3] <norm-HL.var>, [4] <norm-LLHL.var> and [5] <norm-SP.var> are the policy simulations for 'LL', 'HL', 'LL+HL' and 'SP' assuming wage benchmarking and are compared to [1] <norm-basis.var>; [1] <vrij-basis.var> is the baseline with free wage setting; [2] <vrij-LL.var>, [3] <vrij-HL.var>, [4] <vrij-LLHL.var> and [5] <vrij-SP.var> are the policy simulations for 'LL', 'HL', 'LL+HL' and 'SP' assuming free wage setting and are compared to [1] <vrij-basis>. Similar tables exist for the hyperselective measures ('DB+VB', 'SM', 'PP', 'VB') but are not reported here.
  3. If the effects of a particular measure are compared between the wage regimes, one should keep also in mind that the baselines are different as well.



the one hand, if the Phillips effect dominates the productivity effect, the gross wage rate increase strengthens the personal income and social security contribution tax base. On the other hand, fewer additional jobs are created, weakening the tax base.

Which set is the more realistic one is open to debate. In practice, the wage benchmark is imposed by 2-year periods, implying that the wage growth rates in distant future are at best an educated guess. Furthermore, the ‘wage drift’, resulting from employees’ moving up the official wage scales and additional wage increases negotiated at the firm level in response to the unemployment rate and the business cycle (López-Novella, 2001), may cause gross wages to deviate from the wage benchmark<sup>1</sup>.

#### 4. Caveat: Interpreting substitution in the labour market

Labour demand responds to volume-effects and substitution effects. The volume effect is clear-cut: reducing the wage cost of one category of labour reduces the average labour cost and increases demand for all types of labour. Not so for the substitution effect that is muddled by cross-price effects and the translog nature of the substitution.

#### 5. Caveat: wage cost and employment

An ex ante fall in the nominal wage cost rate is not a sufficient condition to guarantee an ex post rise in employment. Input-output linkages and differences in factor intensity across upstream and downstream sectors may occasionally cause surprising effects. E.g. a reduction of low-wage social security rates will lower the average labour cost more in low-wage sectors than in high-wage sectors. To the extent that intermediate supplies of low-wage upstream sectors to high-wage downstream sectors are important, one cannot exclude that the price of intermediate inputs will fall more than the average nominal wage cost in high-wage downstream sectors, lowering labour demand in high-wage downstream sectors in the process.

#### 6. Caveat: total, wage-earning and self-employed labour

In all sectors but financial services (CR), miscellaneous services (OS) and health care (SA), labour demand is modelled in terms of total employment and wage-earning labour is determined as the residual of total employment and self-employed labour. Moreover, it is assumed that self-employed and wage-earning labour are paid the same average wage cost rate. Whether this matters in policy

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1. We could have considered a third wage regime, one that leaves the wage cost rate constant and allows the gross wage rate to absorb any change in wage subsidy or social security contribution rates. In such an environment, wage cost reductions merely amount to deficit spending, stimulating aggregate demand and leaving relative wage rates constant. However, a substantial overhaul of HERMES’s labour market equations would have been necessary, an avenue not pursued here. The second wage regime could be interpreted as an intermediate case between the first wage regime at one end, most likely to cause maximum impact, and the third wage regime at the other end, most likely to produce minimum impact.

simulations depends on the way self-employed labour is modelled in those sectors (i.e. all sectors except for CR, OS and SA). If self-employed labour is modelled as a trend, self-employed labour is not affected relative to the baseline and net job creation is fully attributed to wage-earning labour. If self-employed labour is modelled as a ratio of employment as in the case of the commercial sector (HA), net job creation is allocated between self-employed and wage-earning labour. However, net job creation itself is not affected.

However, labour demand in financial services (CR), miscellaneous services (OS) and health care (SA) is modelled in terms of wage-earning employment and total employment is determined by adding self-employed labour to wage-earning labour. If self-employed labour is modelled as a trend (as in SA), self-employed labour is not affected relative to the baseline and wage-earning labour is the sole source of net job creation. If self-employed labour is modelled as a ratio of employment as in the case of CR and OS, additional wage-earning employment is prone to a leverage effect and additional self-employed labour is created, boosting total employment.

#### 7. Caveat: the self-financing rate of the special-employment programmes

The presence of 'Sociale maribel - Maribel social' jobs, which are subjected to relatively high social security rates, in the special-employment category implies a high self-financing rate for the special-employment programmes. If the non-profit market sector were removed from the special-employment category, special employment would consist of jobs with social contribution rates near zero and the self-financing rate would become negligibly small.

#### 8. Caveat: other considerations

By nature, HERMES does not take in account micro-economic issues such as the matching of supply and demand, informal markets, and on-the-job-training, which may be very well labour-specific. Other considerations, such as the need to combat poverty and to permanently improve the employability of low-skilled labour by means of selective employment programmes, do not enter the picture either.

#### 9. Caveat: comparison with previous HERMES policy simulations

Differences between the policy simulations generated by the new HERMES model and those obtained by previous vintages are not only due to the introduction of heterogeneity in the labour market but also due to the yearly re-estimation of behavioural relations and differences in the international environment. Moreover, most of the policy results presented here are based on small, time-invariant social security reductions whereas previous simulations imposed social security reductions that were larger in size and increasing in time (because defined as a fixed percentage of GDP).

## B. Wage cost reductions in the case of a wage benchmark

Table 10 and the tables in section G compare the macroeconomic, labour market and public finance effects at time t+6. Macroeconomic and sectoral detail for 'LL', 'HL', 'LL+HL' and 'SP' from time t+1 to t+6 is relegated to section H. No such detail for 'DB+VB', 'SM', 'PP' or 'VB' is reported.

**TABLE 10 - Medium-term effects on the labour market and public finance of additional wage cost reduction measures with wage benchmarking (relative to the 2001-2006 baseline forecast at year t+6)**

	LL	HL	LL+HL	SP	DB + VB	SM	PP	VB
d N	3623	1579	1854	2450	533	1806	377	398
d NF	2822	1377	1576	2257	458	1804	309	323
d NF_LL	4200	-149	471	319	26	530	86	96
d NF_HL	-1437	1536	1106	-821	-480	920	-194	-194
d NF_SP	59	-10	0	2759	912	354	418	421
EX ANTE *	5.203	5.203	5.203	4.536	0.968	3.469	0.682	0.696
d FLG *	-4.694	-3.511	-3.689	-3.159	-1.462	-3.369	-0.702	-0.695
SELF (%)	9.78%	32.53%	29.10%	30.37%	-51.02%	2.89%	-2.95%	0.10%
d FLG/ d N **	-1.296	-2.223	-1.990	-1.289	-2.743	-1.865	-1.863	-1.745
r YO	0.028	0.018	0.019	0.017	0.003	0.006	0.003	0.003
r PCH	-0.064	-0.021	-0.026	-0.021	-0.010	-0.012	-0.006	-0.007
r CO	0.017	0.024	0.023	0.019	-0.004	-0.009	0.003	0.003
r (YDH/PCH)	0.021	0.030	0.028	0.021	-0.003	-0.002	0.003	0.003
r (WBT/NF)/(QVOT/NT)	-0.183	-0.072	-0.087	-0.091	-0.036	-0.053	-0.021	-0.021
d (GOSF/QVUT)	0.057	0.019	0.024	0.028	0.022	0.046	0.007	0.007

\* billions of BEF; \*\* millions of BEF; (LL, HL, LL+HL, SP, DB+VB, SM, PP, VB): see main text, N = total employment, NF = wage earning market sector employment excl. agriculture, LL = low wages excl. agriculture, HL = high wages excl. agriculture, SP = endogenous special employment excl. agriculture, EX ANTE = ex ante amount of wage cost reductions, FLG = government surplus, SELF = self-financing rate, YO = real GDP, PCH = consumer prices, CO = private consumption, YDH/PCH = real disposable income of households, (WBT/NF)/(QVOT/NT) = labour cost per unit output in the market sector, GOSF/QVUT = gross operating surplus as % of added value in the market sector, d = absolute difference, r = percentage difference.

### 1. Employment and public finances

Ignoring the hyperselective measures, the net cost to the government per additional job ('d FLG/d N') varies enormously (between 1.3 and 2.2 million BEF) and substitution among the three types of labour is high.

The self-financing rate ('SELF', calculated from 'd FLG' and 'EX ANTE') is generally modest. The low-wage measure ('LL') appears most effective in terms of net budgetary cost per job (1.3 million). However, its self-financing rate (only 9.8%) is lower than either a general ('LL+HL') or a high-wage measure ('HL') which are self-financing at rates of 29.1% and 32.5%. The reason is that the low-wage measure destroys high-wage jobs and therefore income tax revenue and social security

contributions as well. Because of the relatively low net cost per job (1.3 million BEF) and the self-financing rate (30.4%), the general special measure ('SP') looks reasonably effective as well.

The low-wage measure produces more additional employment ('d N', 3620 units) and a larger increase in GDP ('r YO', 0.028%) than either the high-wage measure (1580 units; 0.018%) or the special measure (2450 units; 0.017%). Net substitution<sup>1</sup> between low-wage ('d NF\_LL') and high-wage labour ('d NF\_HL') is particularly strong if the low-wage measure is implemented (1 high-wage job is lost for 3 additional low-wage jobs) but weaker if the high-wage measure is implemented (1 low-wage job is lost for 10 additional high-wage jobs). The special measure favours both special ('d NF\_SP') and low-wage labour, be it at the expense of high-wage labour (1 high-wage job is lost for 3.5 additional special jobs)<sup>2</sup>.

The self-financing rates look slightly unfavourable in comparison to the results obtained with the HERMES vintages that assumed homogeneous labour. Whereas HERMES anno 2001 produces a self-financing rate of 29.1% for a general reduction, Bossier and Vanhorebeek (2000; 35-38) find that an ex ante social security contribution reduction worth 63.1 billion BEF at t+5 (equivalent to 52.2 billion at t+1) produces a fall in the government's budget surplus by 40.2 billion, implying a self-financing rate as high as 36.3%. The self-financing rate at t+5 in Bossier et al. (1995; 9-13) amounts to 36.2% (ex ante reduction of 36.7 billion at t+5, equivalent to 30.0 billion ex ante in t+1). Taken in account the uncertainties of model building in general and the factors mentioned in paragraph IV-A-9 (size and timepath of the budgetary shocks), the new and old self-financing rates are quite similar. Only Bossier et al. (1998; 5-20) find even higher self-financing rates: a chain of social security contribution reductions, starting at 18 billion at t+1 and gradually increasing to 108 billion at t+6, reduces the government's budget surplus by 59.2 billion at t+6, implying a self-financing rate as high as 45.2%.

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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's 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.
  2. The effectiveness of the labour cost reducing policies, especially the low-wage measure, is probably overestimated due to the weight of self-employed labour in net job creation. Since self-employed labour in all sectors but CR (financial services), HA (commerce) and OS (miscellaneous services) follows a trend, policy shocks do not affect self-employed labour in these sectors. Not so for the number of self-employed in CR, HA and OS which is modelled as a ratio of total or wage-earning labour and depends on the gross operating surplus relative to gross wages. Since the ratios of self-employed labour to other labour are rather insensitive to the relative gross operating surplus rates, the leverage effect of these equations can be quite huge because of the big share of self-employed labour in total employment in HA (28.8% in 2001) and OS (42.2% in 2001) and because HA and OS are big employers (19.7% and 21.2% of market sector employment in 2001). This phenomenon is particularly strong in case of the low-wage measure due to the strong employment creation in HA en OS (see further). To eliminate the exaggerated effect on self-employed labour, one could block the self-employed labour equation when simulating the policy shocks. However, the direction of causality between total and wage-earning labour matters to the net outcome. If causality runs from total labour to wage-earning labour (defining wage-earning labour as the difference between total and self-employed labour) as in HA, blocking the equation for self-employed labour will not affect net job creation and will merely assign that part of job creation that is now allocated to self-employed labour to wage-earning labour. If causality runs from wage-earning labour to total labour (self-employed labour is simply added to wage-earning labour) as in CR and OS, blocking the equation for self-employed labour will reduce net job creation.

Another difference is that the low-wage measure was estimated to be far cheaper than the general measure in previous HERMES simulations. According to Bossier et al. (1995), the low-wage measure's self-financing rate reaches 68.6% (ex ante reduction of 37.9 billion at t+5, equivalent to 30.6 billion ex ante at t+1, ex post fall in the government surplus of 11.9 milliard at t+5) whereas the general measure only achieves 36.2%. The reason for this result is a two-stage increase in labour demand: firstly, demand for low-wage labour increases disproportionately; next, total demand for labour increases following the initially induced rise in economic activity. Moreover, there is no substitution between low-wage labour and other types of employment. Another reason for the high self-financing rate is that low-wage earners have got a higher propensity to consume than other income earners<sup>1</sup>. In contrast, the substitution of high-wage for low-wage labour that follows a reduction in social security contributions aimed at low-wage labour reduces the self-financing rate considerably in the latest HERMES vintage. Also, low-wage income earners haven't got a higher propensity to consume in the latest HERMES vintage.

The hyperselective special-programme measures look worryingly cost ineffective, with self-financing rates either near zero or slightly negative ('VB', 'SM', 'PP') or excessively negative ('DB+VB') and net cost rates per job between 1.7 and 2.7 million BEF (see Table 10).

## 2. Sectoral output

Construction and the energy sector are hardly or even unfavourably affected by the low-wage measure, whereas agriculture, consumer goods manufacturing and to a lesser degree also transport and communications fare best from the low-wage measure. Sectoral differences are more muted in the case of the high-wage measure, but the impact on construction and the energy sector is clearly weaker than on other sectors. The special measure mainly stimulates the health sector.

## 3. Aggregate demand

Private consumption ('r CO') depends highly on the real gross wage bill. Falling consumer prices ('r PCH') and increasing employment both raise real disposable income ('r(YDH/PCH)'). The employment effect on disposable income is particularly strong in the case of the low-wage measure, but the overall effect on the wage bill is softened by the substitution of high-wage labour for low-wage labour. In contrast, the employment effect on disposable income is relatively weak in the case of the high-wage cost reduction measure, but the overall effect on the wage bill is strengthened by the substitution of low-wage labour for high-wage labour. On aggregate, the high-wage measure is a little stronger than the low-wage measure in raising private consumption (0.024% vrs 0.017%).

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1. The distinction between low-wage and other labour was squeezed into the model by attaching MILOU to HERMES: first, MILOU - a stripped-down version of HERMES - computes the effects of changes in social security rates on employment, using larger-than-average elasticities of labour demand to the wage cost. Then, these semi-partial employment effects, interpreted as low-wage employment effects, are fed into the full-blown version of HERMES.

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<sup>1</sup>. 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. Note that the low-wage measure provokes the strongest changes in profitability ( $d(\text{GOSF}/\text{QVUT})$ ) and wage cost competitiveness ( $d((\text{WBT}/\text{NT})/(\text{QVOT}/\text{NT}))$ ). On aggregate, the low-wage cost reduction measure depresses investment economy-wide mainly because of the decrease in investment in health care and miscellaneous services. In contrast, the high-wage and special-labour measures raise investment economy-wide in spite of depressed investment in health care.

Domestic absorption rises by less than GDP, implying a rise in net exports, made possible by the fall in the price of domestic output relative to foreign prices. Consequent on the low-wage measure, the labour cost per unit output ( $d((\text{WBT}/\text{NT})/(\text{QVOT}/\text{NT}))$ ) falls twice as much as after the high-wage measure, causing a bigger increase in exports and limiting the increase in imports.

#### 4. Winners and losers: firms, households, the government and the economy nation-wide

If judged by GDP and employment, the low-wage measure is most favourable for the nation as a whole. If corporate profitability were the criterium, firms would prefer the low-wage measure as well. Measured by the government balance, whether in absolute figures or as percentage of GDP, the low-wage measure is the most expensive option for the government and the special measure the cheapest.

The high-wage measure is most favourable for the nation as a whole and for households in particular if private consumption and real disposable income are the criteria of choice.

Ignoring government finances, there are no compelling reasons to expand special employment policies because the special-programme measure performs no better than either the low-wage measure or the high-wage measure if judged by the other criteria.

### C. Additional wage cost reductions with free gross wage setting

The policy simulations are reported as differences with the free-wage regime baseline, not with the baseline that assumes wage benchmarking because the latter would imply both a regime shift and an exogenous shock. Table 11 and the tables in section G compare the macro-economic, labour market and public finance effects at time  $t+6$ . Sectoral detail for 'LL', 'HL', 'LL+HL' and 'SP' from time

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1. There are also sector-specific transmission channels. Investment in construction and services depends on the growth rate of output. Therefore, if the rise in output is initially strong, the growth rate of output may be smaller afterwards, depressing demand for investment goods in the process. Investment in manufacturing and the energy sector is raised by a twofold volume effect: the increase in capacity utilization and marginal output.

t+1 to t+6 is relegated to section I. No sectoral detail for 'DB+VB', 'SM', 'PP' or 'VB' is reported.

**TABLE 11 - Medium-term effects on the labour market and public finance of additional wage cost reduction measures with free wage setting (relative to the 2001-2006 baseline forecast in year t+6)**

	LL	HL	LL+HL	SP	DB + VB	SM	PP	VB
d N	2080	1105	1237	1763	385	1239	262	276
d NF	1521	992	1070	1728	326	1374	212	218
d NF_LL	3707	-252	312	126	4	326	55	64
d NF_HL	-2146	1274	788	-1025	-496	667	-244	-250
d NF_SP	-40	-29	-30	2626	818	380	401	405
EX ANTE *	5.201	5.201	5.201	4.866	0.918	3.496	0.700	0.708
d FLG *	-3.245	-3.253	-3.273	-2.415	-1.243	-2.782	-0.584	-0.555
SELF (%)	37.61%	37.47%	37.08%	50.37%	-35.44%	20.40%	16.60%	21.57%
d FLG/ d N **	-1.560	-2.943	-2.645	-1.370	-3.225	-2.246	-2.228	-2.012
r YO	0.017	0.015	0.015	0.013	0.002	0.002	0.002	0.002
r PCH	-0.034	-0.012	-0.015	-0.004	-0.007	0.001	-0.004	-0.004
r CO	0.024	0.025	0.024	0.026	-0.002	-0.006	0.003	0.004
r (YDH/PCH)	0.034	0.031	0.031	0.029	-0.001	0.002	0.004	0.004
r (WBT/NF)/(QVOT/NT)	-0.071	-0.048	-0.051	-0.036	-0.024	-0.014	-0.012	-0.011
d (GOSF/QVUT)	0.021	0.011	0.012	0.009	0.017	0.032	0.004	0.004

\* billions of BEF; \*\* millions of BEF; (LL, HL, LL+HL, SP, DB+VB, SM, PP, VB): see main text, N = total employment, NF = wage earning market sector employment excl. agriculture, LL = low wages excl. agriculture, HL = high wages excl. agriculture, SP = endogenous special employment excl. agriculture, EX ANTE = ex ante amount of wage cost reductions, FLG = government surplus, SELF = self-financing rate, YO = real GDP, PCH = consumer prices, CO = private consumption, YDH/PCH = real disposable income of households, (WBT/NF)/(QVOT/NT) = labour cost per unit output in the market sector, GOSF/QVUT = gross operating surplus as % of added value in the market sector, d = absolute difference, r = percentage difference.

## 1. Employment and public finances

As in the case with wage benchmarking, the net cost to the government per additional job varies widely between policies (between 1.4 million and 2.9 million BEF). In comparison, the net cost per job is substantially higher (especially of the high-wage measure: up to 2.9 million from 2.2 million BEF), substitution among the three types of labour is even stronger and job and output creation is smaller. On the other hand, all measures are more self-financing, especially the low-wage (up to 37.6% from 9.8% ) and the special measure (up to 50.4% from 30.4%).

The highest self-financing rate (50.4%) and the lowest net cost per job (1.4 million BEF) make the special measure the most effective measure. The low-wage measure costs less per additional job than the high-wage measure (1.6 million vrs 2.9 million BEF) and is equally self-financing (37.6% vrs 37.5%), making it more cost effective than the high-wage measure.

The low-wage measure produces more additional employment and a larger increase in GDP than either the high-wage measure or the special measure in a free-wage economy as well. However, net job creation and additional output are smaller in a free-wage regime than in wage-benchmark regime for all policy measures: down to 2080 units (from 3620 units) and 0.017% (from 0.028%) in the case of 'LL', down to 1100 units (from 1580 units) and 0.015% (from 0.018%) in the case of 'HL', and down to 1760 units (from 2450 units) and 0.013% (from 0.017%) in the case of 'SP'.

Net substitution is even stronger in a free-wage setting than in a wage benchmark context: The low-wage measure requires 1 high-wage job less for 2 additional low-wage jobs; the high-wage measure destroys 1 low-wage job for 5 additional high-wage jobs; the special measure eliminates about 1 high-wage job for 3 additional special jobs. However, what appears to be higher substitutability in a free-wage setting is in fact mostly due to the smaller volume effect in a free-wage setting<sup>1</sup>.

Previous HERMES vintages which assumed homogeneous labour had already detected that free-wage self-financing rates compare favourably with wage-benchmark self-financing rates. E.g. Bossier and Vanhorebeek (2000; 39-42) find that an ex ante social security contribution reduction worth 66.7 billion BEF at t+5 (equivalent to 52.4 billion at t+1) produces a fall in the government's budget surplus by 36.0 billion, implying a self-financing rate as high as 46.0% whereas the same measure in a wage benchmark setting is self-financing at a lower 36.3% rate.

The hyperselective special-programme measures still look worryingly cost ineffective, with self-financing rates either below the ones observed for 'LL' and 'HL' ('VB', 'SM', 'PP') or excessively negative ('DB+VB') and net cost rates per job between 2.0 and 3.2 million BEF.

## 2. Sectoral output

Freeing wages not only reduces the effect on GDP, the ranking of changes in sectoral output is affected as well. This must be due to sectoral differences in the responsiveness of the gross wage to pressures in the labour market. However, the energy sector is hardly affected, whatever the wage regime.

Whatever the wage regime, consumer goods, manufacturing and agriculture benefit more from the low-wage measure than other sectors. The impact of the construction is generally small. However, consequent on the low-wage measure, the financial sector expands relatively more in a free-wage setting than in a wage benchmark regime, plausibly because the Phillips effect on wages in the financial sector is relatively small. In contrast, capital goods manufacturing suffers from the low-wage measure if wages are set free, plausibly because of the relatively strong Phillips effect on wages in that sector.

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1. A decomposition of the differences in net substitution between the two wage regimes into the pure substitution effect and the volume effect by measure and sector can be obtained from the author.



Aside from weaker effects in a free-wage regime, sectoral output responds qualitatively similarly to the high-wage measure in the two wage regimes. The exception is capital goods manufacturing, which responds less in a free-wage regime, which is plausibly accounted for by the relatively strong Phillips effect on wages in that sector.

The biggest differences between the two wage regimes apply to the special measure. On the one hand, free wages produce a higher increase in health care output in a free-wage regime than in a wage benchmark setting. On the other hand, consumer goods and capital equipment manufacturing are adversely affected.

### 3. Aggregate demand

The smaller drop in the labour cost per unit output accounts for the smaller increase in GDP if wages setting is free, particularly when the low-wage measure is implemented.

The overall effect on GDP hides differentiated effects on GDP's subaggregates. Because of the larger increase in real disposable income, private consumption is boosted more in a free-wage setting than in a wage benchmark environment. As to capital goods formation, the differences between the two wage regimes are minor and policy-specific. The smaller improvement in competitiveness in a free-wage setting also implies a smaller increase in exports and a bigger increase in imports.

The bias towards domestic absorption if the special measure is implemented is even more obvious in a free-wage regime than in a wage-benchmark regime.

### 4. Winners and losers: firms, households, the government and the economy nation-wide

The ranking by welfare effects is different between the two wage regimes. In terms of employment and the welfare of firms, the low-wage measure stays the most beneficial policy. However, if judged by consumption, there is not much difference between the high-wage measure and the low-wage measure. The high-wage measure is still the most expensive policy in terms of net cost per job, but the fall in government surplus it generates barely differs at all from the one generated by the low-wage measure. Whatever the wage regime, the special measure is most cost effective for the government, both in terms of net cost per job and government deficit (in absolute terms and as a percentage of GDP).





## Conclusions

For marginal changes in social security contributions and selective measures aimed at broad subaggregates of labour i.e. low-wage, high-wage and special-programme employment, HERMES generates plausible policy simulations. HERMES is less apt at simulating hyperselective measures, i.e. policies aimed at subcategories of special employment.

The magnitude of the pure substitution effect among low-wage, high-wage and special-programme employment is in tune with the international empirical literature. The implicit elasticities of substitution are probably less than one for realistic wage cost-cutting policies. The non-homothetic nature of translog-based substitution on the labour market has one drawback: the link between factor ratios and relative wage rates is somewhat loose in the baseline.

The differences in net substitution between the simulations assuming gross wage benchmarks and the simulations assuming free gross wages are due to different volume effects. A free-wage regime is more benign to the government surplus than a wage benchmark regime, but at the price of less additional employment and output and weaker cost effectiveness. Though the free-wage model is useful, it suffers from several drawbacks, both econometrically (a lot of wage equations parameters are imposed, not freely estimated) and conceptually (the same rate of growth is imposed on the wage rate of all labour categories; the economic rationale behind the wage equations).

The low-wage measure is the most beneficial policy in terms of employment, output, cost effectiveness and gross operating surplus. The high-wage measure is superior in terms of consumption and more self-financing than the low-wage measure. The final verdict on the usefulness of expanding special-employment programmes is still out and relies very much on considerations other than macro-economic effectiveness.





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## Appendum 1: Medium-term policy simulations (t+6)

### A. Wage benchmark

Relative effectiveness of general and selective policies  
(absolute difference with baseline)

	06[2-1]	06[3-1]	06[4-1]	06[5-1]
Employment (in 1000 - incl. self-employed and government employment)	3.623	1.579	1.854	2.450
Wage earning employment (in 1000)(*)	2.822	1.377	1.576	2.257
Low-wage earning employment (in 1000)(*)	4.200	-0.149	0.471	0.319
High-wage earning employment (in 1000)(*)	-1.437	1.536	1.106	-0.821
Wage earning employment in special programmes (in 1000)(*)	0.059	-0.010	-0.000	2.759
Government surplus in % of GDP	-0.035	-0.027	-0.028	-0.024
Government surplus (in billions Bef)	-4.694	-3.511	-3.689	-3.159
Gross operating surplus (in % of added value) (market sector)	0.057	0.019	0.024	0.028
(*) market sector exclusive agriculture				
(-) Differences				
[1] c:/usr/frame/eigen/agora/norm-basis.var				
[2] c:/usr/frame/eigen/agora/norm-LL.var				
[3] c:/usr/frame/eigen/agora/norm-HL.var				
[4] c:/usr/frame/eigen/agora/norm-LLHL.var				
[5] c:/usr/frame/eigen/agora/norm-SP.var				

Government finances				
(absolute differences with baseline - billions of Bef)				
	06[2-1]	06[3-1]	06[4-1]	06[5-1]
1. Surplus	-4.694	-3.511	-3.689	-3.159
- p.m.: surplus as % of GDP	-0.035	-0.027	-0.028	-0.024
2. Receipts	-7.356	-3.627	-4.136	-3.931
- of which direct taxes on non-corporate income	-1.340	0.511	0.251	0.074
- of which direct taxes on corporate income	0.689	0.318	0.376	0.411
- of which indirect taxes	-0.642	-0.036	-0.117	-0.072
- of which social security contributions	-5.939	-4.395	-4.607	-4.309
3. Expenditure excl. interest payments	-3.749	-1.069	-1.421	-1.434
- of which government operating costs	-0.766	-0.211	-0.283	-0.239
- of which pension entitlements	-0.668	-0.207	-0.267	-0.212
- of which health care	-0.420	-0.116	-0.155	-0.129
- of which unemployment entitlements	-1.140	-0.479	-0.567	-0.726
- of which current transfers to firms	-0.075	-0.011	-0.019	0.042
- p.m. wage subsidies through activation of unemployment entitlements and the Sociam Maribel programme	-0.008	-0.004	-0.004	0.061
4. Interest payments	1.088	0.953	0.974	0.662

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LL.var

[3] c:/usr/frame/eigen/agora/norm-HL.var

[4] c:/usr/frame/eigen/agora/norm-LLHL.var

[5] c:/usr/frame/eigen/agora/norm-SP.var

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Relative effectiveness of general and selective policies  
(percentage difference with baseline)

	06[2/1]	06[3/1]	06[4/1]	06[5/1]
Real GDP	0.028	0.018	0.019	0.017
Consumer price index	-0.064	-0.021	-0.026	-0.021
Real disposable income of households	0.021	0.030	0.028	0.021
Consumption in real terms	0.017	0.024	0.023	0.019
Employment (incl. self-employed and government employment)	0.087	0.038	0.045	0.059
Wage earning employment (*)	0.107	0.052	0.060	0.085
Low-wage earning employment (*)	0.576	-0.020	0.065	0.044
High-wage earning employment (*)	-0.082	0.088	0.063	-0.047
Wage earning employment in special programmes (*)	0.035	-0.006	-0.000	1.641
Labour cost per unit output (market sector)	-0.183	-0.072	-0.087	-0.091
(*) market sector without agriculture				
(/) Growth Rates				
[1] c:/usr/frame/eigen/agora/norm-basis.var				
[2] c:/usr/frame/eigen/agora/norm-LL.var				
[3] c:/usr/frame/eigen/agora/norm-HL.var				
[4] c:/usr/frame/eigen/agora/norm-LLHL.var				
[5] c:/usr/frame/eigen/agora/norm-SP.var				

	Production and expenditure			
	Differences as % of baseline			
	06[2/1]	06[3/1]	06[4/1]	06[5/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>				
(constant prices)				
- Private consumption	0.017	0.024	0.023	0.019
- Gross capital formation	-0.008	0.012	0.009	0.007
- Domestic absorption	0.009	0.018	0.017	0.020
- Exports of goods and services	0.022	0.010	0.011	0.005
- Imports of goods and services	0.005	0.010	0.009	0.007
- GDP	0.028	0.018	0.019	0.017
<b>PRICES</b>				
- Private consumption	-0.064	-0.021	-0.026	-0.021
- GDP-deflator	-0.079	-0.029	-0.035	-0.030
<b>LABOUR MARKET</b>				
- Employment	0.087	0.038	0.045	0.059
- Unemployment	-0.673	-0.293	-0.344	-0.455
- Real wage cost per employed (market sector)	-0.182	-0.071	-0.087	-0.116
[1] c:/usr/frame/eigen/agora/norm-basis.var				
[2] c:/usr/frame/eigen/agora/norm-LL.var				
[3] c:/usr/frame/eigen/agora/norm-HL.var				
[4] c:/usr/frame/eigen/agora/norm-LLHL.var				
[5] c:/usr/frame/eigen/agora/norm-SP.var				
(/) Growth Rates				

## Employment and output by branch

(Differences in % of baseline)

	06[2/1]	06[3/1]	06[4/1]	06[5/1]
<b>ADDED VALUE (constant prices)</b>				
- Agriculture	0.057	0.017	0.020	0.010
- Energy	-0.008	0.008	0.006	0.004
- Manufacturing	0.042	0.021	0.023	0.012
. Intermediate goods	0.020	0.016	0.016	0.011
. Investment goods	0.028	0.021	0.022	0.009
. Consumer goods	0.078	0.028	0.034	0.016
- Construction	0.002	0.013	0.011	0.011
- Transport and communication	0.043	0.024	0.026	0.018
- Commerce and horeca	0.025	0.016	0.017	0.013
- Financial services	0.027	0.028	0.028	0.021
- Health care	0.014	0.023	0.022	0.088
- Miscellaneous services	0.033	0.020	0.021	0.018
Total market sector	0.031	0.020	0.021	0.019
<b>EMPLOYMENT</b>				
- Agriculture	0.109	0.023	0.022	0.005
- Energy	0.011	0.036	0.032	0.009
- Manufacturing	0.071	0.050	0.052	0.017
. Intermediate goods	0.031	0.043	0.041	0.012
. Investment goods	0.041	0.057	0.055	0.013
. Consumer goods	0.117	0.051	0.059	0.024
- Construction	0.030	0.047	0.045	0.056
- Transport and communications	0.111	0.051	0.059	0.042
- Commerce and horeca	0.134	0.036	0.050	0.037
- Financial services	0.047	0.053	0.052	0.022
- Health care	0.053	0.055	0.055	0.274
- Miscellaneous services	0.200	0.049	0.070	0.049
Total market sector	0.109	0.047	0.056	0.073

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LL.var

[3] c:/usr/frame/eigen/agora/norm-HL.var

[4] c:/usr/frame/eigen/agora/norm-LLHL.var

[5] c:/usr/frame/eigen/agora/norm-SP.var

(I) Growth Rates

## B. Free wages

Relative effectiveness of general and selective policies  
(absolute difference with baseline)

	06[2-1]	06[3-1]	06[4-1]	06[5-1]
Employment (in 1000 - incl. self-employed and government employment)	2.080	1.105	1.237	1.763
Wage earning employment (in 1000)(*)	1.521	0.992	1.070	1.728
Low-wage earning employment (in 1000)(*)	3.707	-0.252	0.312	0.126
High-wage earning employment (in 1000)(*)	-2.146	1.274	0.788	-1.025
Wage earning employment in special programmes (in 1000)(*)	-0.040	-0.029	-0.030	2.626
Government surplus in % of GDP	-0.024	-0.024	-0.025	-0.018
Government surplus (in billions Bef)	-3.245	-3.253	-3.273	-2.415
Gross operating surplus (in % of added value) (market sector)	0.021	0.011	0.012	0.009
(*) market sector exclusive agriculture				
(-) Differences				
[1] c:/usr/frame/eigen/agora/vrij-basis.var				
[2] c:/usr/frame/eigen/agora/vrij-LL.var				
[3] c:/usr/frame/eigen/agora/vrij-HL.var				
[4] c:/usr/frame/eigen/agora/vrij-LLHL.var				
[5] c:/usr/frame/eigen/agora/vrij-SP.var				

Government finances				
(absolute differences with baseline - billions of Bef)				
	06[2-1]	06[3-1]	06[4-1]	06[5-1]
1. Surplus	-3.245	-3.253	-3.273	-2.415
- p.m.: surplus as % of GDP	-0.024	-0.024	-0.025	-0.018
2. Receipts	-4.091	-2.893	-3.060	-2.260
- of which direct taxes on non-corporate income	0.308	0.906	0.814	1.053
- of which direct taxes on corporate income	0.281	0.232	0.247	0.206
- of which indirect taxes	-0.180	0.074	0.041	0.229
- of which social security contributions	-4.455	-4.097	-4.150	-3.760
3. Expenditure excl. interest payments	-1.795	-0.559	-0.714	-0.431
- of which government operating costs	-0.374	-0.110	-0.141	-0.017
- of which pension entitlements	-0.354	-0.125	-0.152	-0.035
- of which health care	-0.223	-0.060	-0.080	-0.014
- of which unemployment entitlements	-0.651	-0.332	-0.374	-0.500
- of which current transfers to firms	-0.026	0.002	-0.002	0.068
- p.m. wage subsidies through activation of unemployment entitlements and the Sociam Maribel programme	-0.006	-0.003	-0.003	0.061
4. Interest payments	0.949	0.919	0.927	0.586
[1] c:/usr/frame/eigen/agora/vrij-basis.var				
[2] c:/usr/frame/eigen/agora/vrij-LL.var				
[3] c:/usr/frame/eigen/agora/vrij-HL.var				
[4] c:/usr/frame/eigen/agora/vrij-LLHL.var				
[5] c:/usr/frame/eigen/agora/vrij-SP.var				
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Relative effectiveness of general and selective policies  
(percentage difference with baseline)

	06[2/1]	06[3/1]	06[4/1]	06[5/1]
Real GDP	0.017	0.015	0.015	0.013
Consumer price index	-0.034	-0.012	-0.015	-0.004
Real disposable income of households	0.034	0.031	0.031	0.029
Consumption in real terms	0.024	0.025	0.024	0.026
Employment (incl. self-employed and government employment)	0.051	0.027	0.030	0.043
Wage earning employment (*)	0.059	0.038	0.041	0.067
Low-wage earning employment (*)	0.515	-0.035	0.043	0.018
High-wage earning employment (*)	-0.126	0.075	0.046	-0.060
Wage earning employment in special programmes (*)	-0.026	-0.019	-0.019	1.694
Labour cost per unit output (market sector)	-0.071	-0.048	-0.051	-0.036

(\*) market sector without agriculture

(/) Growth Rates

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LL.var

[3] c:/usr/frame/eigen/agora/vrij-HL.var

[4] c:/usr/frame/eigen/agora/vrij-LLHL.var

[5] c:/usr/frame/eigen/agora/vrij-SP.var

	Production and expenditure			
	Differences as % of baseline			
	06[2/1]	06[3/1]	06[4/1]	06[5/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>				
(constant prices)				
- Private consumption	0.024	0.025	0.024	0.026
- Gross capital formation	-0.010	0.014	0.011	0.007
- Domestic absorption	0.012	0.019	0.018	0.026
- Exports of goods and services	0.013	0.008	0.008	-0.002
- Imports of goods and services	0.007	0.011	0.010	0.009
- GDP	0.017	0.015	0.015	0.013
<b>PRICES</b>				
- Private consumption	-0.034	-0.012	-0.015	-0.004
- GDP-deflator	-0.035	-0.019	-0.021	-0.006
<b>LABOUR MARKET</b>				
- Employment	0.051	0.027	0.030	0.043
- Unemployment	-0.350	-0.186	-0.208	-0.297
- Real wage cost per employed (market sector)	-0.081	-0.046	-0.052	-0.069
[1] c:/usr/frame/eigen/agora/vrij-basis.var				
[2] c:/usr/frame/eigen/agora/vrij-LL.var				
[3] c:/usr/frame/eigen/agora/vrij-HL.var				
[4] c:/usr/frame/eigen/agora/vrij-LLHL.var				
[5] c:/usr/frame/eigen/agora/vrij-SP.var				
(/) Growth Rates				

## Employment and output by branch

(Differences in % of baseline)

	06[2/1]	06[3/1]	06[4/1]	06[5/1]
<b>ADDED VALUE (constant prices)</b>				
- Agriculture	0.044	0.015	0.016	0.001
- Energy	-0.005	0.009	0.007	0.009
- Manufacturing	0.020	0.017	0.017	-0.002
. Intermediate goods	0.010	0.016	0.015	0.007
. Investment goods	-0.005	0.009	0.007	-0.015
. Consumer goods	0.052	0.023	0.026	-0.005
- Construction	-0.003	0.014	0.011	0.010
- Transport and communication	0.032	0.022	0.024	0.010
- Commerce and horeca	0.020	0.013	0.014	0.011
- Financial services	0.030	0.029	0.028	0.024
- Health care	0.006	0.023	0.020	0.126
- Miscellaneous services	0.020	0.016	0.017	0.012
Total market sector	0.019	0.017	0.017	0.014
<b>EMPLOYMENT</b>				
- Agriculture	0.101	0.021	0.020	0.000
- Energy	0.011	0.045	0.040	0.016
- Manufacturing	0.036	0.039	0.038	-0.009
. Intermediate goods	0.021	0.045	0.042	0.007
. Investment goods	-0.029	0.027	0.019	-0.039
. Consumer goods	0.084	0.042	0.047	-0.004
- Construction	-0.045	0.035	0.024	0.017
- Transport and communications	0.076	0.051	0.055	0.011
- Commerce and horeca	0.101	0.021	0.032	0.014
- Financial services	0.029	0.049	0.046	0.011
- Health care	0.013	0.045	0.041	0.339
- Miscellaneous services	0.121	0.024	0.038	0.001
Total market sector	0.063	0.034	0.038	0.054

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LL.var

[3] c:/usr/frame/eigen/agora/vrij-HL.var

[4] c:/usr/frame/eigen/agora/vrij-LLHL.var

[5] c:/usr/frame/eigen/agora/vrij-SP.var

(/) Growth Rates





## Appendum 2: Macroeconomic and sectoral effects of expanding existing labour market policies with wage benchmarking

### A. The low-wage measure (scenario 'LL')

Change in the employer social security contribution rates						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
3. Manufacturing	-1.232	-1.167	-1.106	-1.051	-0.997	-0.948
3.1. Intermediate goods	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
3.2. Investment goods	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
3.3. Consumer goods	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
4. Construction	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
5. Tradeable services	-1.232	-1.166	-1.106	-1.051	-0.997	-0.948
5.1. Transport and communication	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
5.2. Commerce and horeca	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
5.3. Financial services	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
5.4. Health care	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
5.5. Miscellaneous services	-1.232	-1.167	-1.106	-1.051	-0.998	-0.948
HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.001	0.001	0.001	0.001
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000

4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.001	0.001	0.002	0.002	0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000

SPECIAL EMPLOYMENT PROGRAMMES

1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.000	0.000	0.000	0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.005	-0.004	-0.003	-0.002	-0.001	-0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LL.var

(-) Differences

Government finances						
(absolute differences with baseline - billions of Bef)						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.863	-3.824	-3.959	-4.240	-4.607	-4.694
- p.m.: surplus as % of GDP	-0.037	-0.035	-0.034	-0.035	-0.036	-0.035
2. Receipts	-4.824	-5.625	-6.240	-6.814	-7.370	-7.356
- of which direct taxes on non-corporate income	-0.325	-0.620	-0.879	-1.158	-1.418	-1.340
- of which direct taxes on corporate income	0.712	0.700	0.720	0.744	0.770	0.689
- of which indirect taxes	-0.048	-0.214	-0.344	-0.462	-0.582	-0.642
- of which social security contributions	-5.134	-5.429	-5.653	-5.836	-6.022	-5.939
3. Expenditure excl. interest payments	-0.999	-1.949	-2.607	-3.128	-3.573	-3.749
- of which government operating costs	-0.228	-0.434	-0.564	-0.664	-0.744	-0.766
- of which pension entitlements	-0.215	-0.384	-0.492	-0.575	-0.644	-0.668
- of which health care	-0.000	-0.138	-0.240	-0.314	-0.377	-0.420
- of which unemployment entitlements	-0.422	-0.632	-0.805	-0.952	-1.081	-1.140
- of which current transfers to firms	-0.005	-0.037	-0.051	-0.065	-0.074	-0.075
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.002	-0.006	-0.005	-0.008	-0.009	-0.008
4. Interest payments	0.038	0.148	0.326	0.554	0.810	1.088

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LL.var

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.019	0.022	0.022	0.020	0.018	0.017
- Gross capital formation	-0.006	-0.012	-0.009	-0.007	-0.008	-0.008
- Domestic absorption	0.012	0.012	0.012	0.011	0.010	0.009
- Exports of goods and services	0.005	0.011	0.015	0.018	0.021	0.022
- Imports of goods and services	0.002	0.002	0.003	0.004	0.004	0.005
- GDP	0.014	0.020	0.024	0.026	0.028	0.028
<b>PRICES</b>						
- Private consumption	-0.025	-0.042	-0.052	-0.059	-0.064	-0.064
- GDP-deflator	-0.031	-0.050	-0.063	-0.072	-0.078	-0.079
<b>LABOUR MARKET</b>						
- Employment	0.037	0.054	0.066	0.076	0.085	0.087
- Unemployment	-0.257	-0.376	-0.474	-0.556	-0.634	-0.673
- Real wage cost per employed (market sector)	-0.135	-0.153	-0.168	-0.181	-0.192	-0.182
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-LL.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.027	0.041	0.048	0.053	0.056	0.057
- Energy	-0.001	-0.003	-0.005	-0.006	-0.008	-0.008
- Manufacturing	0.012	0.023	0.031	0.036	0.040	0.042
. Intermediate goods	0.004	0.010	0.015	0.018	0.020	0.020
. Investment goods	0.007	0.013	0.019	0.023	0.026	0.028
. Consumer goods	0.027	0.045	0.058	0.067	0.074	0.078
- Construction	0.002	-0.003	0.001	0.003	0.002	0.002
- Transport and communication	0.023	0.029	0.036	0.040	0.042	0.043
- Commerce and horeca	0.016	0.023	0.026	0.027	0.027	0.025
- Financial services	0.033	0.040	0.038	0.035	0.031	0.027
- Health care	0.020	0.019	0.018	0.017	0.016	0.014
- Miscellaneous services	0.017	0.023	0.027	0.030	0.032	0.033
Total market sector	0.016	0.022	0.026	0.029	0.031	0.031
<b>EMPLOYMENT</b>						
- Agriculture	0.044	0.070	0.086	0.096	0.103	0.109
- Energy	-0.000	0.000	0.001	0.003	0.006	0.011
- Manufacturing	0.010	0.021	0.033	0.046	0.060	0.071
. Intermediate goods	0.002	0.006	0.011	0.017	0.024	0.031
. Investment goods	0.004	0.009	0.017	0.025	0.034	0.041
. Consumer goods	0.019	0.038	0.059	0.080	0.100	0.117
- Construction	0.021	0.020	0.027	0.031	0.032	0.030
- Transport and communications	0.083	0.094	0.103	0.109	0.114	0.111
- Commerce and horeca	0.041	0.071	0.093	0.112	0.126	0.134
- Financial services	0.017	0.028	0.036	0.042	0.047	0.047
- Health care	0.030	0.039	0.045	0.049	0.053	0.053
- Miscellaneous services	0.102	0.143	0.170	0.189	0.202	0.200
Total market sector	0.047	0.067	0.083	0.096	0.106	0.109

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LL.var

(/) Growth Rates

## B. The high-wage measure (scenario 'HL')

### Change in the employer social security contribution rates

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.000	0.000	0.000	0.000	0.000
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
3. Manufacturing	-0.204	-0.195	-0.186	-0.177	-0.168	-0.160
3.1. Intermediate goods	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
3.2. Investment goods	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
3.3. Consumer goods	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
4. Construction	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
5. Tradeable services	-0.204	-0.195	-0.185	-0.177	-0.168	-0.160
5.1. Transport and communication	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
5.2. Commerce and horeca	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
5.3. Financial services	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
5.4. Health care	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160
5.5. Miscellaneous services	-0.204	-0.194	-0.185	-0.177	-0.168	-0.160

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SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.003	-0.003	-0.003	-0.002	-0.002	-0.001
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-HL.var						
(-) Differences						

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## Government finances

(absolute differences with baseline - billions of Bef)

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.637	-3.324	-3.229	-3.251	-3.327	-3.511
- p.m.: surplus as % of GDP	-0.035	-0.030	-0.028	-0.027	-0.026	-0.027
2. Receipts	-4.265	-4.211	-4.080	-3.914	-3.723	-3.627
- of which direct taxes on non-corporate income	0.044	0.158	0.267	0.370	0.473	0.511
- of which direct taxes on corporate income	0.576	0.499	0.439	0.385	0.336	0.318
- of which indirect taxes	-0.031	-0.061	-0.066	-0.059	-0.046	-0.036
- of which social security contributions	-4.833	-4.776	-4.687	-4.578	-4.458	-4.395
3. Expenditure excl. interest payments	-0.675	-1.056	-1.193	-1.204	-1.140	-1.069
- of which government operating costs	-0.149	-0.231	-0.256	-0.253	-0.234	-0.211
- of which pension entitlements	-0.140	-0.209	-0.231	-0.232	-0.220	-0.207
- of which health care	-0.000	-0.078	-0.113	-0.124	-0.123	-0.116
- of which unemployment entitlements	-0.302	-0.388	-0.438	-0.462	-0.471	-0.479
- of which current transfers to firms	-0.003	-0.016	-0.018	-0.018	-0.015	-0.011
- p.m. wage subsidies through activation of unemployment entitlements and the Sociam Maribel programme	-0.001	-0.003	-0.003	-0.004	-0.004	-0.004
4. Interest payments	0.047	0.170	0.342	0.541	0.744	0.953

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-HL.var



	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.018	0.022	0.023	0.024	0.025	0.024
- Gross capital formation	0.003	0.004	0.011	0.013	0.013	0.012
- Domestic absorption	0.013	0.016	0.018	0.019	0.019	0.018
- Exports of goods and services	0.003	0.009	0.010	0.011	0.010	0.010
- Imports of goods and services	0.003	0.006	0.008	0.009	0.010	0.010
- GDP	0.013	0.018	0.020	0.020	0.019	0.018
<b>PRICES</b>						
- Private consumption	-0.016	-0.023	-0.025	-0.024	-0.023	-0.021
- GDP-deflator	-0.025	-0.033	-0.035	-0.034	-0.031	-0.029
<b>LABOUR MARKET</b>						
- Employment	0.027	0.034	0.037	0.038	0.038	0.038
- Unemployment	-0.186	-0.236	-0.264	-0.277	-0.286	-0.293
- Real wage cost per employed (market sector)	-0.107	-0.098	-0.090	-0.083	-0.075	-0.071
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-HL.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.014	0.019	0.020	0.020	0.018	0.017
- Energy	0.003	0.006	0.006	0.007	0.008	0.008
- Manufacturing	0.013	0.022	0.025	0.025	0.023	0.021
. Intermediate goods	0.008	0.017	0.019	0.019	0.018	0.016
. Investment goods	0.013	0.022	0.025	0.025	0.023	0.021
. Consumer goods	0.021	0.029	0.032	0.032	0.030	0.028
- Construction	0.008	0.008	0.013	0.015	0.015	0.013
- Transport and communication	0.019	0.024	0.026	0.026	0.025	0.024
- Commerce and horeca	0.013	0.017	0.019	0.018	0.017	0.016
- Financial services	0.028	0.033	0.033	0.032	0.030	0.028
- Health care	0.025	0.026	0.025	0.024	0.024	0.023
- Miscellaneous services	0.015	0.019	0.021	0.022	0.021	0.020
Total market sector	0.015	0.020	0.022	0.022	0.021	0.020
<b>EMPLOYMENT</b>						
- Agriculture	0.009	0.015	0.019	0.021	0.022	0.023
- Energy	0.003	0.009	0.015	0.022	0.030	0.036
- Manufacturing	0.010	0.019	0.028	0.037	0.045	0.050
. Intermediate goods	0.004	0.011	0.019	0.027	0.036	0.043
. Investment goods	0.008	0.019	0.031	0.041	0.050	0.057
. Consumer goods	0.015	0.025	0.034	0.041	0.047	0.051
- Construction	0.056	0.052	0.055	0.054	0.051	0.047
- Transport and communications	0.058	0.059	0.059	0.056	0.053	0.051
- Commerce and horeca	0.020	0.030	0.035	0.037	0.037	0.036
- Financial services	0.044	0.052	0.055	0.056	0.055	0.053
- Health care	0.041	0.051	0.055	0.056	0.056	0.055
- Miscellaneous services	0.050	0.060	0.061	0.058	0.052	0.049
Total market sector	0.034	0.042	0.046	0.048	0.048	0.047

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-HL.var

(/) Growth Rates

### C. The low-wage cum high-wage measure (scenario 'HL+LL')

Change in the employer social security contribution rates						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3. Manufacturing	-0.176	-0.167	-0.159	-0.152	-0.144	-0.138
3.1. Intermediate goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3.2. Investment goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3.3. Consumer goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
4. Construction	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5. Tradeable services	-0.176	-0.167	-0.159	-0.151	-0.144	-0.137
5.1. Transport and communication	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.2. Commerce and horeca	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.3. Financial services	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.4. Health care	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.5. Miscellaneous services	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3. Manufacturing	-0.176	-0.167	-0.159	-0.152	-0.144	-0.138
3.1. Intermediate goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3.2. Investment goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
3.3. Consumer goods	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
4. Construction	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5. Tradeable services	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.1. Transport and communication	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.2. Commerce and horeca	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.3. Financial services	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.4. Health care	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137
5.5. Miscellaneous services	-0.176	-0.167	-0.159	-0.152	-0.144	-0.137

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SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-LLHL.var						
(-) Differences						

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Government finances						
(absolute differences with baseline - billions of Bef)						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.670	-3.397	-3.337	-3.398	-3.517	-3.689
- p.m.: surplus as % of GDP	-0.035	-0.031	-0.029	-0.028	-0.028	-0.028
2. Receipts	-4.339	-4.400	-4.371	-4.307	-4.219	-4.136
- of which direct taxes on non-corporate income	-0.007	0.051	0.107	0.157	0.209	0.251
- of which direct taxes on corporate income	0.597	0.530	0.482	0.439	0.402	0.376
- of which indirect taxes	-0.034	-0.082	-0.103	-0.113	-0.118	-0.117
- of which social security contributions	-4.874	-4.865	-4.818	-4.749	-4.672	-4.607
3. Expenditure excl. interest payments	-0.716	-1.171	-1.375	-1.454	-1.458	-1.421
- of which government operating costs	-0.159	-0.257	-0.295	-0.306	-0.299	-0.283
- of which pension entitlements	-0.149	-0.231	-0.264	-0.276	-0.274	-0.267
- of which health care	-0.000	-0.085	-0.129	-0.148	-0.155	-0.155
- of which unemployment entitlements	-0.318	-0.420	-0.486	-0.527	-0.553	-0.567
- of which current transfers to firms	-0.003	-0.019	-0.022	-0.024	-0.022	-0.019
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.001	-0.003	-0.003	-0.004	-0.004	-0.004
4. Interest payments	0.046	0.167	0.341	0.544	0.756	0.974
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-LLHL.var						
20/08/01						

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.018	0.022	0.023	0.023	0.023	0.023
- Gross capital formation	0.002	0.002	0.008	0.010	0.010	0.009
- Domestic absorption	0.013	0.015	0.017	0.017	0.017	0.017
- Exports of goods and services	0.003	0.009	0.011	0.011	0.011	0.011
- Imports of goods and services	0.003	0.005	0.007	0.008	0.009	0.009
- GDP	0.013	0.018	0.020	0.020	0.020	0.019
<b>PRICES</b>						
- Private consumption	-0.017	-0.025	-0.028	-0.029	-0.028	-0.026
- GDP-deflator	-0.026	-0.035	-0.038	-0.038	-0.037	-0.035
<b>LABOUR MARKET</b>						
- Employment	0.028	0.036	0.041	0.043	0.044	0.045
- Unemployment	-0.196	-0.254	-0.292	-0.314	-0.333	-0.344
- Real wage cost per employed (market sector)	-0.111	-0.106	-0.101	-0.097	-0.092	-0.087
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-LLHL.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.014	0.020	0.021	0.021	0.021	0.020
- Energy	0.002	0.005	0.005	0.005	0.005	0.006
- Manufacturing	0.013	0.022	0.025	0.026	0.025	0.023
. Intermediate goods	0.007	0.016	0.018	0.018	0.018	0.016
. Investment goods	0.012	0.021	0.024	0.024	0.023	0.022
. Consumer goods	0.021	0.031	0.035	0.035	0.035	0.034
- Construction	0.007	0.007	0.012	0.013	0.013	0.011
- Transport and communication	0.020	0.024	0.027	0.028	0.027	0.026
- Commerce and horeca	0.013	0.018	0.019	0.019	0.018	0.017
- Financial services	0.028	0.034	0.034	0.032	0.029	0.028
- Health care	0.025	0.025	0.024	0.023	0.023	0.022
- Miscellaneous services	0.015	0.020	0.022	0.023	0.022	0.021
Total market sector	0.015	0.020	0.022	0.022	0.022	0.021
<b>EMPLOYMENT</b>						
- Agriculture	0.008	0.014	0.018	0.020	0.022	0.022
- Energy	0.003	0.008	0.013	0.019	0.026	0.032
- Manufacturing	0.010	0.019	0.029	0.038	0.046	0.052
. Intermediate goods	0.004	0.010	0.017	0.026	0.035	0.041
. Investment goods	0.007	0.018	0.029	0.039	0.048	0.055
. Consumer goods	0.015	0.027	0.037	0.046	0.054	0.059
- Construction	0.051	0.048	0.051	0.050	0.048	0.045
- Transport and communications	0.061	0.064	0.065	0.064	0.061	0.059
- Commerce and horeca	0.023	0.036	0.043	0.048	0.049	0.050
- Financial services	0.041	0.049	0.053	0.054	0.053	0.052
- Health care	0.040	0.050	0.054	0.055	0.055	0.055
- Miscellaneous services	0.058	0.072	0.076	0.076	0.074	0.070
Total market sector	0.036	0.045	0.051	0.054	0.055	0.056

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-LLHL.var

(/) Growth Rates

## D. The general special-programme measure (scenario 'SP')

### Change in the employer social security contribution rates

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.000	0.000	0.001	0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.001	0.001	0.001	0.001	0.001	0.001
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	0.000	0.000	0.000	0.000	0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.000	0.000	-0.000	-0.001	-0.001
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000



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SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3. Manufacturing	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.1. Intermediate goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.2. Investment goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.3. Consumer goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
4. Construction	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5. Tradeable services	-2.450	-2.448	-2.444	-2.441	-2.437	-2.431
5.1. Transport and communication	-0.999	-0.999	-0.999	-0.999	-0.999	-0.999
5.2. Commerce and horeca	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.3. Financial services	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.4. Health care	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.5. Miscellaneous services	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-SP.var						
(-) Differences						

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Government finances  
(absolute differences with baseline - billions of Bef)

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-2.024	-2.018	-2.214	-2.490	-2.857	-3.159
- p.m.: surplus as % of GDP	-0.019	-0.018	-0.019	-0.021	-0.023	-0.024
2. Receipts	-2.539	-2.816	-3.096	-3.390	-3.720	-3.931
- of which direct taxes on non-corporate income	0.042	0.067	0.063	0.054	0.040	0.074
- of which direct taxes on corporate income	0.377	0.341	0.353	0.369	0.399	0.411
- of which indirect taxes	0.029	-0.004	-0.024	-0.044	-0.065	-0.072
- of which social security contributions	-2.979	-3.202	-3.463	-3.741	-4.062	-4.309
3. Expenditure excl. interest payments	-0.543	-0.892	-1.080	-1.232	-1.350	-1.434
- of which government operating costs	-0.087	-0.146	-0.181	-0.207	-0.228	-0.239
- of which pension entitlements	-0.082	-0.131	-0.161	-0.183	-0.201	-0.212
- of which health care	-0.000	-0.048	-0.078	-0.098	-0.115	-0.129
- of which unemployment entitlements	-0.307	-0.436	-0.530	-0.604	-0.673	-0.726
- of which current transfers to firms	0.006	-0.000	0.026	0.026	0.041	0.042
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	0.002	0.009	0.039	0.042	0.059	0.061
4. Interest payments	0.027	0.094	0.199	0.333	0.487	0.662

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-SP.var

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.013	0.016	0.017	0.018	0.019	0.019
- Gross capital formation	0.004	0.003	0.005	0.006	0.007	0.007
- Domestic absorption	0.015	0.017	0.019	0.019	0.019	0.020
- Exports of goods and services	0.001	0.002	0.003	0.004	0.005	0.005
- Imports of goods and services	0.004	0.005	0.006	0.006	0.006	0.007
- GDP	0.012	0.014	0.015	0.016	0.017	0.017
<b>PRICES</b>						
- Private consumption	-0.010	-0.015	-0.017	-0.019	-0.020	-0.021
- GDP-deflator	-0.016	-0.022	-0.026	-0.028	-0.030	-0.030
<b>LABOUR MARKET</b>						
- Employment	0.029	0.040	0.047	0.052	0.056	0.059
- Unemployment	-0.198	-0.279	-0.335	-0.377	-0.420	-0.455
- Real wage cost per employed (market sector)	-0.081	-0.091	-0.100	-0.106	-0.113	-0.116
[1] c:/usr/frame/eigen/agora/norm-basis.var						
[2] c:/usr/frame/eigen/agora/norm-SP.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.005	0.007	0.008	0.009	0.010	0.010
- Energy	0.006	0.006	0.005	0.005	0.004	0.004
- Manufacturing	0.007	0.008	0.010	0.011	0.012	0.012
. Intermediate goods	0.006	0.009	0.010	0.011	0.011	0.011
. Investment goods	0.005	0.005	0.007	0.008	0.009	0.009
. Consumer goods	0.009	0.010	0.012	0.014	0.015	0.016
- Construction	0.007	0.006	0.009	0.010	0.011	0.011
- Transport and communication	0.010	0.012	0.014	0.016	0.017	0.018
- Commerce and horeca	0.008	0.011	0.013	0.013	0.013	0.013
- Financial services	0.015	0.019	0.021	0.021	0.021	0.021
- Health care	0.083	0.095	0.096	0.093	0.090	0.088
- Miscellaneous services	0.011	0.013	0.015	0.016	0.017	0.018
Total market sector	0.013	0.016	0.017	0.018	0.018	0.019
<b>EMPLOYMENT</b>						
- Agriculture	0.001	0.002	0.003	0.003	0.004	0.005
- Energy	0.003	0.005	0.006	0.007	0.008	0.009
- Manufacturing	0.003	0.006	0.008	0.011	0.014	0.017
. Intermediate goods	0.002	0.003	0.004	0.007	0.009	0.012
. Investment goods	0.002	0.004	0.006	0.008	0.011	0.013
. Consumer goods	0.006	0.008	0.012	0.016	0.020	0.024
- Construction	0.035	0.038	0.046	0.051	0.055	0.056
- Transport and communications	0.014	0.021	0.029	0.034	0.040	0.042
- Commerce and horeca	0.011	0.019	0.025	0.029	0.034	0.037
- Financial services	0.007	0.011	0.015	0.018	0.020	0.022
- Health care	0.164	0.221	0.247	0.261	0.268	0.274
- Miscellaneous services	0.026	0.034	0.040	0.044	0.048	0.049
Total market sector	0.036	0.050	0.059	0.065	0.070	0.073

[1] c:/usr/frame/eigen/agora/norm-basis.var

[2] c:/usr/frame/eigen/agora/norm-SP.var

(/) Growth Rates



## IX Appendum 3: Macroeconomic and sectoral effects of expanding existing labour market policies in a free wage setting

### A. The low-wage cost measure (scenario 'LL')

Change in the employer social security contribution rates						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
3. Manufacturing	-1.233	-1.162	-1.094	-1.032	-0.973	-0.917
3.1. Intermediate goods	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
3.2. Investment goods	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
3.3. Consumer goods	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
4. Construction	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
5. Tradeable services	-1.232	-1.162	-1.095	-1.033	-0.973	-0.918
5.1. Transport and communication	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
5.2. Commerce and horeca	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
5.3. Financial services	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
5.4. Health care	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917
5.5. Miscellaneous services	-1.233	-1.162	-1.095	-1.033	-0.973	-0.917

HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.001	0.001	0.001	0.001
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.001	0.001	0.001	0.002	0.001
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.000	0.000	0.000	0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.005	-0.004	-0.003	-0.002	-0.000	-0.000
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-LL.var						
(-) Differences						

Government finances  
(absolute differences with baseline - billions of Bef)

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.676	-3.445	-3.359	-3.331	-3.390	-3.245
- p.m.: surplus as % of GDP	-0.035	-0.031	-0.029	-0.027	-0.026	-0.024
2. Receipts	-4.551	-4.948	-5.065	-4.973	-4.791	-4.091
- of which direct taxes on non-corporate income	-0.168	-0.259	-0.273	-0.224	-0.119	0.308
- of which direct taxes on corporate income	0.657	0.596	0.562	0.517	0.457	0.281
- of which indirect taxes	-0.021	-0.130	-0.187	-0.200	-0.210	-0.180
- of which social security contributions	-4.992	-5.105	-5.109	-5.006	-4.862	-4.455
3. Expenditure excl. interest payments	-0.914	-1.649	-2.018	-2.159	-2.131	-1.795
- of which government operating costs	-0.209	-0.371	-0.442	-0.465	-0.452	-0.374
- of which pension entitlements	-0.197	-0.331	-0.392	-0.414	-0.409	-0.354
- of which health care	-0.000	-0.120	-0.193	-0.228	-0.239	-0.223
- of which unemployment entitlements	-0.390	-0.550	-0.654	-0.709	-0.723	-0.651
- of which current transfers to firms	-0.005	-0.030	-0.037	-0.040	-0.037	-0.026
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.001	-0.005	-0.005	-0.006	-0.007	-0.006
4. Interest payments	0.039	0.146	0.313	0.517	0.731	0.949

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LL.var

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.020	0.025	0.026	0.027	0.026	0.024
- Gross capital formation	-0.005	-0.011	-0.008	-0.007	-0.009	-0.010
- Domestic absorption	0.012	0.013	0.014	0.014	0.013	0.012
- Exports of goods and services	0.004	0.010	0.012	0.014	0.014	0.013
- Imports of goods and services	0.003	0.004	0.005	0.007	0.007	0.007
- GDP	0.014	0.018	0.021	0.021	0.020	0.017
<b>PRICES</b>						
- Private consumption	-0.023	-0.036	-0.041	-0.042	-0.041	-0.034
- GDP-deflator	-0.028	-0.041	-0.046	-0.047	-0.044	-0.035
<b>LABOUR MARKET</b>						
- Employment	0.035	0.047	0.054	0.057	0.057	0.051
- Unemployment	-0.239	-0.326	-0.378	-0.397	-0.397	-0.350
- Real wage cost per employed (market sector)	-0.123	-0.127	-0.126	-0.120	-0.110	-0.081
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-LL.var						
(/) Growth Rates						



## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.026	0.038	0.044	0.047	0.046	0.044
- Energy	-0.001	-0.002	-0.003	-0.004	-0.005	-0.005
- Manufacturing	0.011	0.019	0.023	0.025	0.024	0.020
. Intermediate goods	0.003	0.009	0.011	0.012	0.012	0.010
. Investment goods	0.005	0.006	0.006	0.004	-0.001	-0.005
. Consumer goods	0.025	0.040	0.050	0.055	0.056	0.052
- Construction	0.002	-0.003	0.001	0.002	0.000	-0.003
- Transport and communication	0.023	0.028	0.033	0.036	0.035	0.032
- Commerce and horeca	0.016	0.023	0.024	0.025	0.024	0.020
- Financial services	0.033	0.040	0.040	0.039	0.036	0.030
- Health care	0.018	0.016	0.013	0.011	0.009	0.006
- Miscellaneous services	0.016	0.021	0.024	0.025	0.024	0.020
Total market sector	0.015	0.020	0.023	0.024	0.022	0.019
<b>EMPLOYMENT</b>						
- Agriculture	0.044	0.069	0.084	0.093	0.098	0.101
- Energy	0.000	0.001	0.003	0.006	0.009	0.011
- Manufacturing	0.009	0.017	0.025	0.032	0.036	0.036
. Intermediate goods	0.002	0.005	0.009	0.013	0.018	0.021
. Investment goods	0.002	0.003	0.002	-0.004	-0.014	-0.029
. Consumer goods	0.018	0.034	0.051	0.065	0.078	0.084
- Construction	0.011	-0.001	-0.009	-0.019	-0.032	-0.045
- Transport and communications	0.080	0.089	0.094	0.093	0.088	0.076
- Commerce and horeca	0.040	0.066	0.084	0.096	0.103	0.101
- Financial services	0.016	0.024	0.029	0.033	0.033	0.029
- Health care	0.026	0.029	0.028	0.026	0.021	0.013
- Miscellaneous services	0.096	0.127	0.142	0.146	0.142	0.121
Total market sector	0.043	0.059	0.068	0.072	0.072	0.063

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LL.var

(/) Growth Rates

## B. The high-wage measure (scenario 'HL')

### Change in the employer social security contribution rates

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.000	-0.000	-0.000	-0.000	-0.000
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
3. Manufacturing	-0.204	-0.193	-0.183	-0.173	-0.163	-0.154
3.1. Intermediate goods	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
3.2. Investment goods	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
3.3. Consumer goods	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
4. Construction	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
5. Tradeable services	-0.204	-0.193	-0.183	-0.173	-0.163	-0.154
5.1. Transport and communication	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
5.2. Commerce and horeca	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
5.3. Financial services	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
5.4. Health care	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154
5.5. Miscellaneous services	-0.204	-0.193	-0.182	-0.172	-0.163	-0.154

SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-HL.var						
(-) Differences						

Government finances						
(absolute differences with baseline - billions of Bef)						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.498	-3.167	-3.055	-3.052	-3.092	-3.253
- p.m.: surplus as % of GDP	-0.034	-0.029	-0.026	-0.025	-0.024	-0.024
2. Receipts	-4.064	-3.899	-3.660	-3.387	-3.079	-2.893
- of which direct taxes on non-corporate income	0.159	0.334	0.495	0.656	0.819	0.906
- of which direct taxes on corporate income	0.534	0.445	0.382	0.320	0.262	0.232
- of which indirect taxes	-0.012	-0.023	-0.008	0.015	0.050	0.074
- of which social security contributions	-4.728	-4.629	-4.505	-4.358	-4.197	-4.097
3. Expenditure excl. interest payments	-0.614	-0.899	-0.942	-0.863	-0.710	-0.559
- of which government operating costs	-0.135	-0.197	-0.203	-0.183	-0.146	-0.110
- of which pension entitlements	-0.128	-0.180	-0.187	-0.174	-0.148	-0.125
- of which health care	0.000	-0.067	-0.091	-0.091	-0.078	-0.060
- of which unemployment entitlements	-0.279	-0.342	-0.367	-0.365	-0.349	-0.332
- of which current transfers to firms	-0.003	-0.013	-0.012	-0.009	-0.004	0.002
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.001	-0.003	-0.002	-0.003	-0.003	-0.003
4. Interest payments	0.048	0.168	0.336	0.528	0.723	0.919
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-HL.var						

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.018	0.023	0.024	0.025	0.025	0.025
- Gross capital formation	0.003	0.005	0.011	0.014	0.014	0.014
- Domestic absorption	0.014	0.016	0.018	0.019	0.019	0.019
- Exports of goods and services	0.003	0.008	0.009	0.009	0.009	0.008
- Imports of goods and services	0.003	0.007	0.009	0.010	0.011	0.011
- GDP	0.013	0.017	0.018	0.018	0.017	0.015
<b>PRICES</b>						
- Private consumption	-0.015	-0.020	-0.020	-0.018	-0.015	-0.012
- GDP-deflator	-0.023	-0.029	-0.029	-0.026	-0.022	-0.019
<b>LABOUR MARKET</b>						
- Employment	0.025	0.030	0.031	0.030	0.029	0.027
- Unemployment	-0.172	-0.207	-0.217	-0.211	-0.199	-0.186
- Real wage cost per employed (market sector)	-0.098	-0.085	-0.074	-0.063	-0.053	-0.046

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-HL.var

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.013	0.018	0.018	0.017	0.016	0.015
- Energy	0.004	0.006	0.007	0.008	0.008	0.009
- Manufacturing	0.012	0.020	0.022	0.021	0.019	0.017
. Intermediate goods	0.007	0.016	0.018	0.019	0.018	0.016
. Investment goods	0.012	0.018	0.018	0.016	0.012	0.009
. Consumer goods	0.019	0.027	0.028	0.027	0.025	0.023
- Construction	0.008	0.009	0.014	0.016	0.015	0.014
- Transport and communication	0.019	0.023	0.025	0.025	0.024	0.022
- Commerce and horeca	0.012	0.017	0.017	0.016	0.015	0.013
- Financial services	0.028	0.033	0.033	0.031	0.030	0.029
- Health care	0.024	0.024	0.024	0.023	0.023	0.023
- Miscellaneous services	0.014	0.018	0.019	0.019	0.018	0.016
Total market sector	0.014	0.019	0.020	0.020	0.018	0.017
<b>EMPLOYMENT</b>						
- Agriculture	0.009	0.015	0.018	0.020	0.021	0.021
- Energy	0.004	0.010	0.017	0.026	0.036	0.045
- Manufacturing	0.009	0.017	0.024	0.031	0.036	0.039
. Intermediate goods	0.004	0.011	0.019	0.028	0.038	0.045
. Investment goods	0.007	0.015	0.022	0.026	0.028	0.027
. Consumer goods	0.014	0.023	0.030	0.035	0.040	0.042
- Construction	0.049	0.047	0.048	0.044	0.039	0.035
- Transport and communications	0.055	0.057	0.057	0.055	0.052	0.051
- Commerce and horeca	0.019	0.027	0.029	0.028	0.024	0.021
- Financial services	0.043	0.051	0.053	0.053	0.051	0.049
- Health care	0.039	0.046	0.048	0.048	0.047	0.045
- Miscellaneous services	0.045	0.049	0.046	0.038	0.030	0.024
Total market sector	0.031	0.037	0.039	0.038	0.036	0.034

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-HL.var

## C. The low-wage cum high-wage measure (scenario 'LL+HL')

### Change in the employer social security contribution rates

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3. Manufacturing	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.1. Intermediate goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.2. Investment goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.3. Consumer goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
4. Construction	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5. Tradeable services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.1. Transport and communication	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.2. Commerce and horeca	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.3. Financial services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.4. Health care	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.5. Miscellaneous services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3. Manufacturing	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.1. Intermediate goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.2. Investment goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
3.3. Consumer goods	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
4. Construction	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5. Tradeable services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.1. Transport and communication	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.2. Commerce and horeca	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.3. Financial services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.4. Health care	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132
5.5. Miscellaneous services	-0.176	-0.166	-0.157	-0.148	-0.140	-0.132

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SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-LLHL.var						
(-) Differences						

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## Government finances

(absolute differences with baseline - billions of Bef)

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-3.524	-3.212	-3.107	-3.105	-3.152	-3.273
- p.m.: surplus as % of GDP	-0.034	-0.029	-0.027	-0.026	-0.025	-0.025
2. Receipts	-4.130	-4.040	-3.850	-3.602	-3.314	-3.060
- of which direct taxes on non-corporate income	0.114	0.251	0.387	0.530	0.683	0.814
- of which direct taxes on corporate income	0.553	0.469	0.412	0.353	0.297	0.247
- of which indirect taxes	-0.014	-0.038	-0.032	-0.013	0.016	0.041
- of which social security contributions	-4.764	-4.694	-4.588	-4.447	-4.290	-4.150
3. Expenditure excl. interest payments	-0.652	-0.994	-1.076	-1.025	-0.888	-0.714
- of which government operating costs	-0.144	-0.218	-0.232	-0.217	-0.183	-0.141
- of which pension entitlements	-0.136	-0.198	-0.212	-0.203	-0.180	-0.152
- of which health care	0.000	-0.073	-0.103	-0.107	-0.098	-0.080
- of which unemployment entitlements	-0.293	-0.369	-0.405	-0.410	-0.398	-0.374
- of which current transfers to firms	-0.003	-0.015	-0.015	-0.013	-0.008	-0.002
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.001	-0.003	-0.003	-0.003	-0.004	-0.003
4. Interest payments	0.047	0.166	0.334	0.529	0.726	0.927

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LLHL.var

20/08/01



	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.019	0.023	0.024	0.025	0.025	0.024
- Gross capital formation	0.002	0.003	0.009	0.011	0.011	0.011
- Domestic absorption	0.013	0.015	0.017	0.018	0.018	0.018
- Exports of goods and services	0.003	0.008	0.009	0.010	0.009	0.008
- Imports of goods and services	0.003	0.006	0.008	0.009	0.010	0.010
- GDP	0.013	0.017	0.018	0.018	0.017	0.015
<b>PRICES</b>						
- Private consumption	-0.016	-0.022	-0.023	-0.021	-0.018	-0.015
- GDP-deflator	-0.024	-0.030	-0.031	-0.028	-0.025	-0.021
<b>LABOUR MARKET</b>						
- Employment	0.026	0.032	0.034	0.034	0.033	0.030
- Unemployment	-0.181	-0.223	-0.239	-0.236	-0.226	-0.208
- Real wage cost per employed (market sector)	-0.101	-0.091	-0.082	-0.072	-0.061	-0.052
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-LLHL.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.013	0.018	0.019	0.019	0.018	0.016
- Energy	0.003	0.005	0.005	0.006	0.006	0.007
- Manufacturing	0.012	0.020	0.022	0.021	0.019	0.017
. Intermediate goods	0.007	0.015	0.017	0.018	0.017	0.015
. Investment goods	0.011	0.016	0.016	0.014	0.011	0.007
. Consumer goods	0.020	0.028	0.030	0.030	0.028	0.026
- Construction	0.007	0.007	0.012	0.014	0.013	0.011
- Transport and communication	0.019	0.023	0.026	0.026	0.025	0.024
- Commerce and horeca	0.013	0.017	0.018	0.017	0.016	0.014
- Financial services	0.028	0.034	0.034	0.032	0.030	0.028
- Health care	0.023	0.023	0.022	0.022	0.021	0.020
- Miscellaneous services	0.015	0.018	0.020	0.020	0.018	0.017
Total market sector	0.014	0.018	0.020	0.020	0.019	0.017
<b>EMPLOYMENT</b>						
- Agriculture	0.008	0.014	0.017	0.019	0.020	0.020
- Energy	0.003	0.008	0.015	0.023	0.032	0.040
- Manufacturing	0.009	0.017	0.024	0.031	0.036	0.038
. Intermediate goods	0.004	0.010	0.017	0.026	0.035	0.042
. Investment goods	0.006	0.013	0.019	0.022	0.022	0.019
. Consumer goods	0.014	0.024	0.032	0.039	0.044	0.047
- Construction	0.044	0.040	0.040	0.035	0.029	0.024
- Transport and communications	0.059	0.062	0.062	0.060	0.058	0.055
- Commerce and horeca	0.022	0.032	0.037	0.037	0.035	0.032
- Financial services	0.040	0.047	0.050	0.050	0.048	0.046
- Health care	0.037	0.043	0.045	0.045	0.043	0.041
- Miscellaneous services	0.053	0.060	0.060	0.054	0.046	0.038
Total market sector	0.033	0.040	0.043	0.043	0.041	0.038

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-LLHL.var

(/) Growth Rates

## D. The general special-programme measure (scenario 'SP')

Change in the employer social security contribution rates						
	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
<b>LOW-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	0.000	0.000	0.000	0.000	0.001	0.001
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.001	0.001	0.001	0.001	0.000	0.000
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000
<b>HIGH-WAGE EMPLOYMENT</b>						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	0.000	0.000	0.000	0.000	0.000	0.000
3. Manufacturing	-0.000	0.000	0.000	0.000	0.000	0.000
3.1. Intermediate goods	0.000	0.000	0.000	0.000	0.000	0.000
3.2. Investment goods	0.000	0.000	0.000	0.000	0.000	0.000
3.3. Consumer goods	0.000	0.000	0.000	0.000	0.000	0.000
4. Construction	0.000	0.000	0.000	0.000	0.000	0.000
5. Tradeable services	0.000	0.000	-0.000	-0.001	-0.002	-0.002
5.1. Transport and communication	0.000	0.000	0.000	0.000	0.000	0.000
5.2. Commerce and horeca	0.000	0.000	0.000	0.000	0.000	0.000
5.3. Financial services	0.000	0.000	0.000	0.000	0.000	0.000
5.4. Health care	0.000	0.000	0.000	0.000	0.000	0.000
5.5. Miscellaneous services	0.000	0.000	0.000	0.000	0.000	0.000

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SPECIAL EMPLOYMENT PROGRAMMES						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3. Manufacturing	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.1. Intermediate goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.2. Investment goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
3.3. Consumer goods	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
4. Construction	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5. Tradeable services	-2.449	-2.450	-2.450	-2.454	-2.457	-2.457
5.1. Transport and communication	-0.999	-0.999	-0.999	-0.999	-0.999	-0.999
5.2. Commerce and horeca	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.3. Financial services	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.4. Health care	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
5.5. Miscellaneous services	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-SP.var						
(-) Differences						

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Government finances  
(absolute differences with baseline - billions of Bef)

	01[2-1]	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]
1. Surplus	-1.895	-1.772	-1.857	-1.990	-2.232	-2.415
- p.m.: surplus as % of GDP	-0.018	-0.016	-0.016	-0.017	-0.018	-0.018
2. Receipts	-2.348	-2.366	-2.370	-2.343	-2.358	-2.260
- of which direct taxes on non-corporate income	0.163	0.341	0.498	0.671	0.841	1.053
- of which direct taxes on corporate income	0.338	0.268	0.249	0.236	0.230	0.206
- of which indirect taxes	0.050	0.059	0.088	0.133	0.174	0.229
- of which social security contributions	-2.892	-3.024	-3.199	-3.382	-3.607	-3.760
3. Expenditure excl. interest payments	-0.481	-0.687	-0.706	-0.665	-0.569	-0.431
- of which government operating costs	-0.073	-0.101	-0.099	-0.081	-0.055	-0.017
- of which pension entitlements	-0.070	-0.094	-0.094	-0.081	-0.062	-0.035
- of which health care	-0.000	-0.035	-0.045	-0.042	-0.031	-0.014
- of which unemployment entitlements	-0.282	-0.380	-0.438	-0.473	-0.496	-0.500
- of which current transfers to firms	0.006	0.005	0.035	0.042	0.061	0.068
- p.m. wage subsidies through activation of unemployment entitlements and the Sociam Maribel programme	0.002	0.009	0.039	0.043	0.059	0.061
4. Interest payments	0.028	0.093	0.192	0.312	0.443	0.586

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-SP.var

20/08/01

	Production and expenditure					
	Differences as % of baseline					
	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>AGGREGATE DEMAND AND PRODUCTION</b>						
(constant prices)						
- Private consumption	0.014	0.018	0.020	0.023	0.024	0.026
- Gross capital formation	0.004	0.004	0.006	0.007	0.007	0.007
- Domestic absorption	0.016	0.019	0.021	0.023	0.024	0.026
- Exports of goods and services	0.001	0.001	0.001	0.000	-0.001	-0.002
- Imports of goods and services	0.005	0.006	0.007	0.008	0.009	0.009
- GDP	0.011	0.013	0.014	0.014	0.014	0.013
<b>PRICES</b>						
- Private consumption	-0.008	-0.010	-0.010	-0.008	-0.006	-0.004
- GDP-deflator	-0.014	-0.016	-0.015	-0.013	-0.010	-0.006
<b>LABOUR MARKET</b>						
- Employment	0.027	0.035	0.040	0.042	0.043	0.043
- Unemployment	-0.183	-0.244	-0.276	-0.290	-0.299	-0.297
- Real wage cost per employed (market sector)	-0.072	-0.073	-0.074	-0.074	-0.073	-0.069
[1] c:/usr/frame/eigen/agora/vrij-basis.var						
[2] c:/usr/frame/eigen/agora/vrij-SP.var						
(/) Growth Rates						

## Employment and output by branch

(Differences in % of baseline)

	01[2/1]	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]
<b>ADDED VALUE (constant prices)</b>						
- Agriculture	0.005	0.005	0.005	0.004	0.002	0.001
- Energy	0.006	0.007	0.007	0.008	0.008	0.009
- Manufacturing	0.006	0.005	0.004	0.002	0.000	-0.002
. Intermediate goods	0.006	0.008	0.008	0.008	0.008	0.007
. Investment goods	0.003	0.000	-0.003	-0.007	-0.011	-0.015
. Consumer goods	0.007	0.006	0.005	0.002	-0.001	-0.005
- Construction	0.007	0.007	0.010	0.011	0.010	0.010
- Transport and communication	0.009	0.011	0.011	0.011	0.011	0.010
- Commerce and horeca	0.008	0.011	0.011	0.012	0.011	0.011
- Financial services	0.016	0.020	0.022	0.023	0.024	0.024
- Health care	0.082	0.098	0.106	0.113	0.119	0.126
- Miscellaneous services	0.010	0.012	0.013	0.013	0.013	0.012
Total market sector	0.013	0.015	0.015	0.015	0.015	0.014
<b>EMPLOYMENT</b>						
- Agriculture	0.001	0.001	0.002	0.001	0.001	0.000
- Energy	0.004	0.006	0.008	0.011	0.013	0.016
- Manufacturing	0.003	0.003	0.002	-0.001	-0.004	-0.009
. Intermediate goods	0.001	0.002	0.003	0.004	0.006	0.007
. Investment goods	0.001	-0.001	-0.006	-0.013	-0.024	-0.039
. Consumer goods	0.005	0.005	0.005	0.003	0.000	-0.004
- Construction	0.028	0.026	0.027	0.025	0.022	0.017
- Transport and communications	0.011	0.014	0.015	0.015	0.015	0.011
- Commerce and horeca	0.010	0.015	0.017	0.018	0.017	0.014
- Financial services	0.006	0.009	0.011	0.012	0.012	0.011
- Health care	0.162	0.223	0.261	0.290	0.316	0.339
- Miscellaneous services	0.020	0.021	0.018	0.013	0.008	0.001
Total market sector	0.033	0.044	0.049	0.052	0.054	0.054

[1] c:/usr/frame/eigen/agora/vrij-basis.var

[2] c:/usr/frame/eigen/agora/vrij-SP.var

(/) Growth Rates

