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6-02

General and selective reductions in employer social-security contributions in the 2002 vintage of HERMES - A revision of WP 8-01

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Responsible Editor Henri Bogaert
Legal Depot: D/2002/7433/17

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Abstract

The 2001 vintage of the FPB's medium-term HERMES treated the substitution between low-wage, high-wage and special-programme labour as endogenous, allowing the assessment of both general and selective wage cost reduction policies. A reassessment based on the 2002 vintage is overdue because of changes in the special-programme labour concept. Both a version with government-sanctioned wage benchmarking (in line with the 1996 Law on the preservation of competitiveness) and a version with freely negotiated wages are available. Section VIII compares the medium-term effects across general and selective labour cost reduction policies measures for both wage regimes. The transitional and medium-run results for each policy measure are presented in section IX for the case of wage benchmark and section X for the case of a free wage setting. The policies 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).

I Heterogeneous labour in HERMES

A. Three categories of endogenous labour

As from 2001, HERMES makes the distinction between (endogenous) employment in the market sector (comprising both profit and non-profit sectors)[1], 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 various special-employment programmes ('SP'). The cut-off wage between regular low-wage and regular high-wage employment is fixed at 4,685 euro gross per quarter in 2000 prices. The main distinction between the two 'regular' types of labour and special labour is that the latter faces more regulatory constraints and that wage cost reduction measures targetting special labour are conditional on creating additional employment or meeting other regulatory conditions (Stockman, 2001a). However, due to data constraints and changes in labour market policies, the special-employment aggregate of the 2002 vintage is different from the 2001 vintage.

B. Defining special-programme employment

1. 2001 vintage

In the 2001 vintage, special employment consists of (1) the non-profit market sector covered by 'the Sociale maribel'/'Maribel social'-programme, (2) relief jobs aimed at the long-term unemployed and/or the low-skilled unemployed ('Dienstenbanen'/'Emplois service' and 'Voordeelbanenplan'/'Plan avantage à l'embauche') and (3) jobs in business start-ups ('Plan-plus-1-plus-2-plus-3')[2] .

2. 2002 vintage

Things are different in the 2002 vintage for various reasons. First, because the modelling of substitution in the labour market relies heavily on RSZ/ONSS data and because RSZ/ONSS data on 'Sociale Maribel' have become etherial at best, the 'Sociale Maribel'-programme has been removed from the special labour aggregate.

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. See section VII for a brief description.

Instead, it is part of regular low-wage and high-wage employment of the health sector (sector 'SA') in the 2002 vintage.

Second, the 'Startbanen'/'Conventions premier emploi'-programme, introduced in 2000 and forcing firms to hire a quota of young, first-time employed, is now in cruising mode. Only a fraction of starter job employment, namely the low-skilled starter jobs that qualify for additional reductions in employer social-security contributions on top of regular reductions in employer social-security contributions, is considerd part of the special labour aggregate.

Third, the old-style relief jobs ('Dienstenbanen'/'Emplois service' and 'Voordeelbanenplan'/'Plan avantage à l'embauche') are gradually phased out as from 2002 and are to be replaced by a single encompassing programme ('Plan Activa'). The magnitude of the reductions in employer social-security contributions and wage subsidies granted by 'Plan Activa' depends on the age and the unemployment benefit eligibility status of the recruited workers. Importantly, the reductions in employer social-security contributions will become less generous as 'Dienstenbanen'/'Emplois service' with a 100% exemption will be replaced by 'Plan Activa' with less than 100% exemption. However, as 'Voordeelbanenplan'/'Plan avantage à l'embauche'- jobs with zero wage subsidies will be replaced by 'Plan Activa', some will be entitled to 'activated' unemployment benefits and hence the wage subsidy rate will tend to increase.

Recapitulating, the special-employment aggregate comprises (1) 'Plan-plus-1-plus-2-plus-3'-jobs, (2) 'Startbanen'/'Conventions premier emploi'-jobs entitled to additional reductions in employer social-security contributions, (3) new-style relief jobs ('Plan Activa') and (4) for the time being also old-style relief jobs ('Dienstenbanen'/'Emplois service' and 'Voordeelbanenplan'/'Plan avantage à l'embauche'). They account for more than 2% of full-time equivalent employment in the market sector. (Table 1).

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

	2001	2002	2003	2004	2005	2006	2007
Number of special jobs (1000 units) (**)	50.676	50.932	52.751	54.139	55.623	57.185	58.518
Full-time equivalent wage earning labour							
- high-wage labour (% of total)	70.781	70.644	70.414	70.259	70.129	70.021	69.896
- low-wage labour (% of total)	27.141	27.265	27.462	27.592	27.694	27.773	27.872
- special-programme labour (% of total)	2.078	2.091	2.123	2.149	2.177	2.206	2.232
Number of subsidized non-profit market sector jobs (1000 units) (***)	13.552	13.479	13.280	13.022	12.785	12.551	12.324

Based on FPB's medium-term forecast of April 2002; (*) excl. agriculture; (**) plan-plus-1-2-3, Plan Activa, low-skilled starter jobs entitled to additional reductions in employer social-security contributions; old-style relief jobs (Dienstenbanen/Emplois service and Voordeelbanen/Emplois avantage à l'embauche); (***) Sociale maribel/Maribel social.

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 (table 3) and the wage subsidy rate (table 4).

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 forecasts of the structural reductions by sector and wage category and its impact on employment[1].

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 ('handarbeiders'/'ouvriers') - who used to benefit more from reductions in social-security contributions prior to the structural measure - and white-collar workers ('hoofdarbeiders'/'employés') will be reduced by the time the structural measure is implemented fully in 2004. As opposed to the earlier social-security 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[2].

TABLE 2 - Main characteristics of the ex ante structural reduction in the market sector

	2001	2002	2003	2004	2005	2006	2007
Total (billions of euro)	2.667	2.782	2.998	3.233	3.294	3.344	3.335
- agriculture	0.028	0.028	0.028	0.027	0.026	0.027	0.026
- high wages (*)	0.927	0.906	0.900	0.917	0.908	0.936	0.915
- low wages (*)	1.686	1.848	2.070	2.289	2.359	2.381	2.394
% of total							
- agriculture	1.045	1.005	0.925	0.849	0.804	0.796	0.775
- manufacturing and energy	31.212	31.143	30.697	30.270	30.060	29.463	29.147
- services and construction	62.537	64.133	64.841	65.759	66.096	66.817	67.145
- health care	4.210	3.719	3.537	3.122	3.040	2.923	2.933
Percentage fall in wage cost							
- agriculture	5.983	5.781	5.531	5.271	4.922	4.776	4.487
- low wages (*)	6.933	6.438	5.980	5.738	5.411	5.312	4.979
- high wages (*)	1.869	1.981	2.128	2.255	2.220	2.136	2.053

(*) excl. agriculture

1. The methodology is spelled out in detail in Stockman P. (2001b), *Een methodologie voor de ex ante berekening van de structurele bijdragevermindering,* Federal Planning Bureau, ADDG, 6283.
2. 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.

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)[1]. Even so, the reduction in wage cost remains stronger for low-wage labour. 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.

Table 3 depicts the evolution of the employer social-security contribution rates by sector and labour category. The time pattern of low-wage and high-wage contribution rates in the forecast period 2002-2007 predominantly reflects the Structural Measure. Because the growth of the reduction decelerates and falls below the growth rate of wages, the contribution rates tend to increase after some years[2]. The special-programme social-security contribution rates can be assumed constant over time if the technical set-up of special employment programmes remains unchanged. This will the case by the time the old-style relief jobs are fully absorbed by the new-style relief jobs ('Plan Activa') in 2004. However, prior to 2004, as 'Dienstenbanen'/'Emplois service' with zero employer contribution rates are gradually replaced by 'Plan Activa'-jobs carrying non-zero employer contribution rates, the average employer contribution rate on the special-programme wage bill will rise in 2002-2003.

The wage subsidy rates on regular low-wage and high-wage labour (Table 4) are entirely due to 'Sociale Maribel'/'Maribel social'. The increase in the special-programme wage subsidy rates over time reflects the gradual implementation of 'Plan Activa'.

1. HERMES implicitly indexes the cut-off line between low-wage and high-wage labour.
2. Other factors may influence the employer social-security contribution rates: (1) changes in the composition of the workforce because blue-collar and white-collar workers face different legal contribution rates; (2) the size of the firm, (3) changes in extra-legal, sector-specific contribution rates (Masure, 2001).

TABLE 3 - Employer social-security contribution rates by labour category and market sector (2001-2007)

	2001	2002	2003	2004	2005	2006	2007
LOW-WAGE EMPLOYMENT							
1. Agriculture	not available	not available	not available	not available	not available	not available	not available
2. Energy	49.459	50.127	47.588	46.963	46.829	46.950	47.136
3. Manufacturing							
3.1. Intermediate goods	25.448	26.538	26.973	26.871	27.211	27.419	27.759
3.2. Investment goods	26.037	26.803	27.621	27.837	27.523	28.056	28.179
3.3. Consumer goods	22.926	24.234	25.119	25.695	25.955	26.557	27.004
4. Construction	21.513	22.116	22.313	22.615	22.380	22.746	22.617
5. Tradeable services							
5.1. Transport and communication	27.786	28.231	28.655	29.095	29.083	29.476	29.450
5.2. Commerce and horeca	21.830	22.151	23.035	23.230	23.575	23.893	23.451
5.3. Financial services	25.255	25.684	25.022	24.782	24.676	25.332	24.660
5.4. Health care	27.643	28.448	29.253	30.132	30.661	31.187	31.612
5.5. Miscellaneous services	21.877	22.552	22.842	23.234	23.407	24.046	24.061
HIGH-WAGE EMPLOYMENT							
1. Agriculture	not available	not available	not available	not available	not available	not available	not available
2. Energy	70.212	70.164	69.966	69.795	69.807	69.876	69.942
3. Manufacturing							
3.1. Intermediate goods	35.414	35.419	35.248	35.103	35.179	35.318	35.455
3.2. Investment goods	35.307	35.259	35.053	34.879	34.947	35.087	35.221
3.3. Consumer goods	32.679	32.785	32.510	32.358	32.476	32.654	32.815
4. Construction	70.212	70.164	69.966	69.795	69.807	69.876	69.942
5. Tradeable services							
5.1. Transport and communication	30.484	30.428	30.294	30.171	30.198	30.266	30.329
5.2. Commerce and horeca	33.014	32.752	32.421	32.098	32.112	32.219	32.327
5.3. Financial services	35.161	34.984	34.662	34.391	34.415	34.525	34.625
5.4. Health care	34.425	34.493	34.484	34.472	34.476	34.485	34.495
5.5. Miscellaneous services	30.865	30.760	30.558	30.378	30.402	30.491	30.576
SPECIAL-EMPLOYMENT PROGRAMMES							
1. Agriculture	not available	not available	not available	not available	not available	not available	not available
2. Energy	31.519	31.589	31.589	31.589	31.589	31.589	31.589
3. Manufacturing							
3.1. Intermediate goods	10.307	10.641	10.773	10.905	10.905	10.905	10.905
3.2. Investment goods	10.356	10.750	10.912	11.074	11.074	11.074	11.074
3.3. Consumer goods	9.227	9.609	9.765	9.921	9.921	9.921	9.921
4. Construction	10.128	10.313	10.370	10.427	10.427	10.427	10.427
5. Tradeable services							
5.1. Transport and communication	9.164	9.395	9.476	9.556	9.556	9.556	9.556
5.2. Commerce and horeca	7.877	8.275	8.439	8.603	8.603	8.603	8.603
5.3. Financial services	10.303	10.528	10.606	10.684	10.684	10.684	10.684
5.4. Health care	5.969	6.404	6.587	6.770	6.770	6.770	6.770
5.5. Miscellaneous services	6.784	7.069	7.177	7.285	7.285	7.285	7.285
AGRICULTURE (all jobs)							
Agriculture	22.905	23.761	24.266	24.677	24.831	25.221	25.348

TABLE 4 - Wage subsidy rates by sector and labour category (2001-2007)

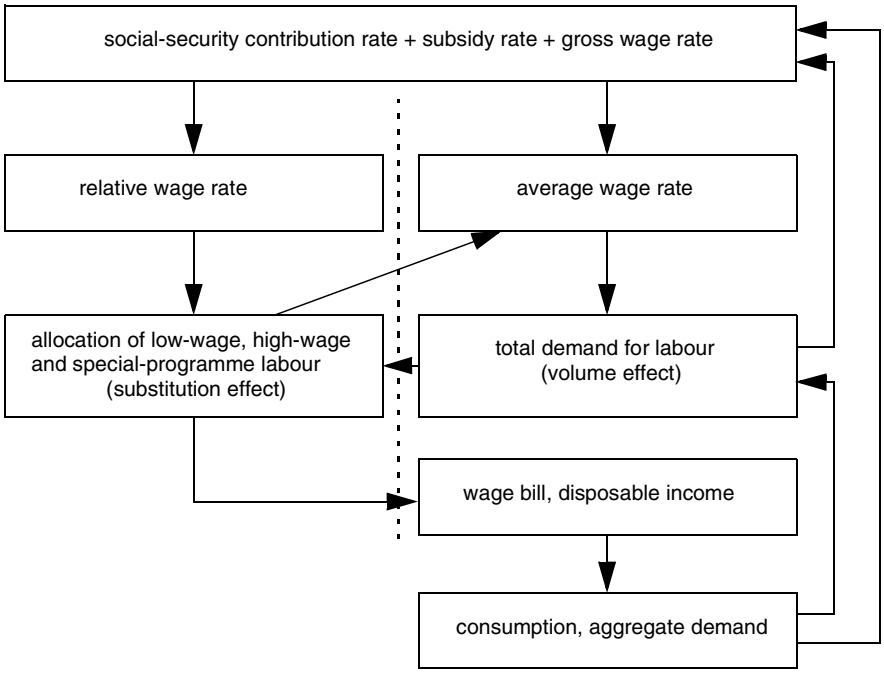
	2001	2002	2003	2004	2005	2006	2007
A. Special-programme subsidy rates							
1. Agriculture	not available	not available	not available	not available	not available	not available	not available
2. Energy	0.000	1.942	3.837	5.671	6.202	6.104	6.007
3. Manufacturing							
3.1. Intermediate goods	3.095	3.434	4.320	5.331	5.816	5.708	5.596
3.2. Investment goods	3.733	3.836	4.664	5.647	6.175	6.073	5.969
3.3. Consumer goods	3.750	3.941	4.858	5.944	6.503	6.408	6.316
4. Construction	1.223	2.022	3.003	4.032	4.413	4.347	4.281
5. Tradeable services							
5.1. Transport and communication	1.929	2.971	4.298	5.714	6.248	6.150	6.056
5.2. Commerce and horeca	3.544	3.242	3.610	4.190	4.583	4.515	4.448
5.3. Financial services	2.081	1.976	2.256	2.619	2.866	2.821	2.777
5.4. Health care	10.757	8.994	9.662	11.074	12.096	11.896	11.704
5.5. Miscellaneous services	2.051	2.119	2.594	3.193	3.490	3.436	3.383
B. Regular employment subsidy rates (*)							
low-wage labour in health care	9.249	8.893	8.367	7.936	7.565	7.255	6.967
high-wage labour in health care	4.305	4.185	3.976	3.797	3.637	3.477	3.330

(*) zero in other sectors.

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

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

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

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

Because of data contraints, time-series analyis 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)+... +(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 [ε], 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 [ε] independent from any [n_k]; the constraint that ($1 = \sum \alpha_k$) implies constant returns to scale, hence ε=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 (γ, α_{HL} and α_{SP}):

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

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

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

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}][1].

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 subscategories of employment add up to total employment. Hence, (5a) rather than (4a) will be used in combination with (5b) and (5c):

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

1. In the case of homothetic functions, the factor proportion [n_i/nj] 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:

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

C. Calibration

Table 5 reports the translog parameters obtained from calibrating 2000 data, using (4a), (4b) and (4c)[1]. 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 5 - Translog substitution parameters in the labour market by sector

	B	C	CR	E	HA	K	OS	Q	SA	Z
γ	-0.008524	-0.010856	-0.003661	-0.0062042	-0.014145	-0.0042008	-0.012047	-0.0041857	-0.012963	-0.011531
α_{HL}	1.01603	0.96459	1.01355	1.01299	0.89056	1.0085	0.93622	1.00806	0.95669	0.93919
α_{SP}	-0.018301	-0.075471	-0.019649	-0.044521	-0.089946	-0.027242	-0.07768	-0.02616	-0.083018	-0.088471

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

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

Table 6 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 substitution between LL and HL and between HL and SP. There is complementarity between LL and SP. In spite of complementarity, relative demand for the factor which becomes more exepnsive will fall because the own price elasticities are larger than the cross-price elasticities (in absolute terms). Symmetry between the Allen's elasticities of substitution holds for the combination SP-LL in most sectors, but not in construction (B), consumer goods (C), commerce (HA and miscallaneous services (OS).

In all sectors, HL has got the smallest own compensated price elasticity. In most sectors, LL has got the largest own compensated price elasticity and SP has got an own price elasticity somewhat smaller than LL. The exceptions are construction (B) and commerce (HA), for which the own price elasticities of LL and SP are roughly equal.

1. Equations (4b) and (4c) are in full-time equivalent terms. The data set is described in detail in Stockman (2001c), *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.

TABLE 6 - Labour demand: Compensated price elasticities and Allen's elasticties of substitution by sector

	Compensated elasticities				Allen's elasticities of substitution		
	w_{LL}	w_{HL}	w_{SP}	ADDING-UP	w_{LL}	w_{HL}	w_{SP}
Sector B							
n_{LL}	-0.7188	0.7990	-0.0914	-0.0112	-20.7378	0.8526	-3.2381
n_{HL}	0.0680	-0.1130	0.0377	-0.0073	1.9629	-0.1206	1.3354
n_{SP}	-0.0845	0.7951	-0.7226	-0.0120	-2.4370	0.8484	-25.6060
Sector C							
n_{LL}	-0.6989	0.6990	-0.0155	-0.0153	-5.6326	0.8061	-1.7557
n_{HL}	0.1867	-0.2124	0.0125	-0.0132	1.5050	-0.2450	1.4180
n_{SP}	-0.1786	0.5986	-0.4505	-0.0304	-1.4391	0.6903	-51.1774
Sector CR							
n_{LL}	-0.8045	0.8753	-0.0783	-0.0074	-47.3249	0.8937	-21.9414
n_{HL}	0.0427	-0.0554	0.0089	-0.0039	2.5097	-0.0566	2.4841
n_{SP}	-0.3619	0.8555	-0.5101	-0.0165	-21.2881	0.8734	-142.9473
Sector E							
n_{LL}	-0.8346	0.8389	-0.0132	-0.0090	-34.8008	0.8598	-32.8303
n_{HL}	0.0629	-0.0692	0.0011	-0.0052	2.6210	-0.0709	2.7515
n_{SP}	-0.7221	0.7760	-0.0718	-0.0180	-30.1110	0.7954	-177.9918
Sector HA							
n_{LL}	-0.5640	0.5401	0.0044	-0.0195	-2.7466	0.6964	0.2327
n_{HL}	0.3197	-0.3644	0.0266	-0.0180	1.5569	-0.4698	1.3950
n_{SP}	0.1087	0.4168	-0.5569	-0.0315	0.5293	0.5374	-29.1911
Sector K							
n_{LL}	-0.8312	0.8709	-0.0469	-0.0072	-28.6874	0.8998	-15.0533
n_{HL}	0.0517	-0.0618	0.0055	-0.0046	1.7848	-0.0639	1.7753
n_{SP}	-0.4220	0.8414	-0.4386	-0.0192	-14.5650	0.8693	-140.6673
Sector OS							
n_{LL}	-0.6264	0.6129	-0.0045	-0.0180	-4.0106	0.7400	-0.2877
n_{HL}	0.2561	-0.2957	0.0232	-0.0163	1.6400	-0.3570	1.4840
n_{SP}	0.0098	0.5099	-0.5497	-0.0300	0.0628	0.6157	-35.1462
Sector Q							
n_{LL}	-0.8205	0.8628	-0.0498	-0.0076	-27.2492	0.8933	-12.1339
n_{HL}	0.0570	-0.0698	0.0076	-0.0051	1.8941	-0.0722	1.8616
n_{SP}	-0.3521	0.8347	-0.5007	-0.0181	-11.6936	0.8643	-122.0305
Sector SA							
n_{LL}	-0.6641	0.6581	-0.0103	-0.0164	-4.6748	0.7772	-0.9189
n_{HL}	0.2146	-0.2468	0.0180	-0.0143	1.5105	-0.2915	1.5985
n_{SP}	-0.1160	0.5476	-0.4627	-0.0312	-0.8166	0.6467	-41.1761
Sector Z							
n_{LL}	-0.6750	0.6688	-0.0103	-0.0166	-4.3685	0.7972	-1.5449
n_{HL}	0.2180	-0.2413	0.0087	-0.0146	1.4105	-0.2877	1.3091
n_{SP}	-0.1907	0.5315	-0.3756	-0.0348	-1.2339	0.6336	-56.4444

n_i = employment; w_i = wage cost rate; B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z = transport & communciations.

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

Table 7 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 w_j by 10%, holding other wage rates and total employment constant. Although strictly not elasticities of substitution, these elasticities do give a good picture of the intra substitutability of labour.

TABLE 7 - 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
B	-0.9005	-0.7204	-1.0504	-1.0457	-0.8690	-0.7168
C	-1.0186	-0.5875	-1.0497	-0.9293	-0.5212	-0.4891
CR	-0.9725	-0.4978	-1.0730	-1.0490	-0.5859	-0.4854
E	-1.0328	-0.1244	-1.0456	-0.9701	-0.0805	-0.0646
HA	-1.0164	-0.7655	-1.0413	-0.8937	-0.6610	-0.6352
K	-1.0153	-0.4594	-1.0754	-1.0398	-0.4996	-0.4394
OS	-1.0149	-0.7226	-1.0461	-0.9228	-0.6486	-0.6163
Q	-1.0089	-0.5275	-1.0751	-1.0413	-0.5736	-0.5074
SA	-1.0104	-0.6198	-1.0418	-0.9095	-0.5417	-0.5091
Z	-1.0275	-0.5459	-1.0480	-0.8837	-0.4310	-0.4093

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. Substitution between SP and LL in the energy sector seems uncharacteristically low. Taking in account that - ceteris paribus - the wage cost rates are anticipated to fall by far less than 10% in 2002-2007 (see Table 2) and that the simulated 'elasticities of substitution' tend to be higher for larger shocks (not shown here), the relevant range of 'elasticities of substitution' is bound to be smaller than suggested by the '10%-simulation' reported in Table 8 and probably less than one. The implication of elasticities of substitution smaller than one is that the share in total labour cost of the factor of which the cost has risen, will rise.

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 of 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 proces. 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).

III Two baselines

A. Substitution in the 2002-2007 baseline forecast with wage benchmarking

At present, gross wage setting in the 2002-2007 forecast 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.

The same government-sanctioned benchmark ('loonnorm'/'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[1]. Tables 8 and 9 show the year-to-year changes in the relative wage cost and the factor proportions in 2002-2007. High-wage labour is becoming cheaper, triggering an increase in high-wage employment relative to low-wage employment, except in health care (SA). On the whole, low-wage labour is becoming more expensive relative to the special employment categories, producing - by and large - an increase in special employment relative to low-wage labour in most sectors (but not in the energy sector and manufacturing).

1. 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 8 - 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

	2002	2003	2004	2005	2006	2007
Year-to-year change in high-wage full-time equivalent employment relative to low-wage full-time equivalent employment						
- Agriculture	not available	not available	not available	not available	not available	not available
- Energy	0.353	0.212	0.254	0.114	0.114	0.106
- Manufacturing						
. Intermediate goods	0.065	0.062	0.064	0.061	0.069	0.053
. Investment goods	0.037	0.073	0.070	0.044	0.061	0.045
. Consumer goods	0.010	0.017	0.019	0.017	0.020	0.016
- Construction	0.034	0.003	0.009	-0.006	-0.005	-0.003
- Services						
. Financial services	0.081	0.080	0.037	-0.003	0.013	-0.022
. Commerce and horeca	0.002	0.004	0.006	0.006	0.006	0.003
. Miscellanious services	0.002	0.002	0.003	0.004	0.005	0.003
. Health care	-0.033	-0.030	-0.020	-0.015	0.010	0.008
- Transport and communications	0.010	0.001	0.005	0.004	0.005	0.004
Year-to-year change in full-time equivalent high-wage cost relative to full-time equivalent low-wage cost						
- Agriculture	not available	not available	not available	not available	not available	not available
- Energy	-0.004	0.004	0.003	0.011	0.010	0.012
- Manufacturing						
. Intermediate goods	-0.006	-0.008	-0.007	-0.007	-0.007	-0.004
. Investment goods	-0.004	-0.007	-0.007	-0.006	-0.007	-0.004
. Consumer goods	-0.005	-0.009	-0.011	-0.010	-0.011	-0.008
- Construction	-0.004	-0.006	-0.007	-0.003	-0.004	-0.001
- Services						
. Financial services	-0.005	-0.004	-0.003	-0.000	-0.003	0.003
. Commerce and horeca	-0.003	-0.009	-0.010	-0.009	-0.010	-0.006
. Miscellaneous services	-0.004	-0.006	-0.007	-0.007	-0.009	-0.006
. Health care	0.014	0.009	0.005	0.002	-0.016	-0.014
- Transport and communication	-0.002	-0.003	-0.005	-0.004	-0.005	-0.004

TABLE 9 - 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

	02	03	04	05	06	07
Year-to-year change in full-time equivalent special-programme employment relative to low-wage full-time equivalent employment						
- Agriculture	not available	not available	not available	not available	not available	not available
- Energy	-0.001	-0.001	-0.001	-0.000	-0.000	-0.000
- Manufacturing						
. Intermediate goods	-0.001	-0.000	-0.000	-0.000	-0.000	-0.000
. Investment goods	-0.000	-0.000	-0.000	0.000	-0.000	-0.000
. Consumer goods	0.000	-0.000	0.000	0.000	0.000	0.000
- Construction	-0.002	0.002	0.002	0.003	0.003	0.001
- Services						
. Financial services	-0.001	-0.001	-0.000	0.000	0.000	0.000
. Commerce and horeca	0.000	0.001	0.000	0.001	0.001	0.000
. Miscellanious services	0.000	0.001	0.001	0.001	0.001	0.001
. Health care	0.002	0.002	0.002	0.002	0.003	0.003
- Transport and communications	-0.001	0.000	0.000	0.000	0.000	0.000
Year-to-year change in full-time equivalent special-programme cost relative to full-time equivalent low-wage cost						
- Agriculture	not available	not available	not available	not available	not available	not available
- Energy	-0.004	-0.002	-0.003	-0.007	-0.006	-0.002
- Manufacturing						
. Intermediate goods	-0.007	-0.002	-0.005	-0.007	-0.007	-0.006
. Investment goods	-0.007	-0.001	-0.005	-0.006	-0.006	-0.006
. Consumer goods	-0.008	-0.003	-0.007	-0.009	-0.010	-0.008
- Construction	-0.007	-0.006	-0.011	-0.012	-0.012	-0.008
- Services						
. Financial services	-0.003	0.003	0.002	0.000	-0.001	0.000
. Commerce and horeca	-0.005	0.001	-0.001	-0.004	-0.004	-0.004
. Miscellaneous services	-0.004	-0.000	-0.004	-0.005	-0.006	-0.005
. Health care	-0.003	0.014	0.005	-0.001	-0.009	-0.011
- Transport and communication	-0.003	-0.003	-0.009	-0.009	-0.009	-0.007

B. The 2002-2007 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)[1]. 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 Table 10 (retrieved from Bossier et al., 2000, 23) indicates[2]. 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.

TABLE 10 - Gross wage equations: Phillips effect, productiviy 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?

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

1. The equation below defines partial adjustment in the wage growth rate of each labour category in each sector. 'p_c' is the consumer price index, 'p_j' the sectoral output price index, 'w_{ij}' the gross wage rate of labour category i and '$\overline{w}_j$' the average gross wage rate in sector j, 'n_j' sectoral employment in sector j and 'y_j' 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.

First, the baseline social-security contribution 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 contribution 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, it is assumed that labour market pressure translates 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[1].

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 11 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 0.3% of GDP by 2007 despite the fall in corporate taxes[2].

1. The thing is that time series span too short a horizon to allow the estimation of labour-specific wage rate equations.
2. In Table 11, <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 11 - Difference between the free-wage baseline and the wage-benchmark baseline (2002-2007)

Government finances (absolute differences - millions of euro)	02[3-2]	03[3-2]	04[3-2]	05[3-2]	06[3-2]	07[3-2]
1. Surplus	137.784	379.113	496.233	610.175	760.640	906.769
- p.m.: surplus as % of GDP	0.052	0.136	0.171	0.202	0.240	0.275
2. Receipts	-25.501	136.375	221.514	345.055	563.721	824.331
- of which direct taxes on non-corporate income	-89.978	-15.711	14.214	77.363	197.484	354.222
- of which direct taxes on corporate income	-2.370	-83.199	-116.757	-158.208	-219.165	-298.842
- of which indirect taxes	38.271	58.943	77.599	99.345	135.707	172.898
- of which social-security contributions	32.151	181.876	253.062	333.377	454.930	599.187
3. Expenditure excl. interest payments	-154.651	-220.202	-230.695	-191.410	-90.001	65.442
- of which government operating costs	-30.171	-45.875	-52.853	-52.479	-43.043	-29.250
- of which pension entitlements	-27.782	-40.434	-46.016	-45.654	-37.986	-26.714
- of which health care	-0.100	-5.928	-3.338	4.915	18.949	38.105
- of which unemployment entitlements	-73.201	-92.298	-97.264	-78.062	-33.939	32.322
- of which current transfers to firms	-1.108	-3.318	-4.415	-4.706	-3.784	-2.396
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.569	-0.900	-1.345	-1.890	-2.380	-2.944
4. Interest payments	-8.622	-22.518	-44.001	-73.687	-106.903	-147.880

[2] c:/usr/simulaties/update-sim/norm-basis.var

[3] c:/usr/simulaties/update-sim/vrij-basis.var

	02[3-2]	03[3-2]	04[3-2]	05[3-2]	06[3-2]	07[3-2]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.040	0.033	0.034	0.032	0.035	0.026
Private consumption	0.142	0.177	0.177	0.173	0.189	0.182
Gross capital formation	-0.068	-0.185	-0.254	-0.355	-0.452	-0.559
Domestic absorption	0.039	-0.008	-0.060	-0.124	-0.176	-0.245
Exports of goods and services	0.009	0.016	0.030	0.055	0.080	0.102
Imports of goods and services	0.006	-0.030	-0.068	-0.102	-0.126	-0.154
p.m. Real disposable household income	-0.003	0.070	0.090	0.111	0.163	0.229
PRICES (percentage difference)						
Private consumer price index	-0.128	-0.173	-0.188	-0.180	-0.146	-0.102
BBP deflator	-0.129	-0.140	-0.152	-0.152	-0.123	-0.079
GOVERNMENT FINANCES						
Government surplus (millions of euro)	137.784	379.113	496.233	610.175	760.640	906.769
Government surplus (% of GDP)	0.052	0.136	0.171	0.202	0.240	0.275

	02[3-2]	03[3-2]	04[3-2]	05[3-2]	06[3-2]	07[3-2]
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	14.109	16.421	16.913	14.137	8.230	-0.105
Wage-earning employment (*)	6.883	6.354	3.886	-1.047	-8.254	-17.206
Low wage-earning employment (*)	3.289	3.824	3.609	2.526	0.684	-1.829
High wage-earning employment (*)	3.485	2.541	0.491	-3.056	-8.029	-13.997
Special employment (*)	0.109	-0.010	-0.214	-0.517	-0.909	-1.380
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.355	0.408	0.417	0.345	0.200	-0.003
Wage-earning employment (*)	0.282	0.255	0.154	-0.041	-0.319	-0.658
Low wage-earning employment (*)	0.494	0.559	0.518	0.356	0.095	-0.251
High wage-earning employment (*)	0.202	0.145	0.028	-0.171	-0.443	-0.767
Special employment (*)	0.214	-0.020	-0.396	-0.934	-1.603	-2.387
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.113	-0.043	-0.117	-0.214	-0.362	-0.536
Real wage cost per employee (market sector) (percentage change)	-0.219	0.151	0.390	0.745	1.266	1.882
Nominal labour cost per unit output (market sector) (percentage difference)	0.072	0.510	0.750	1.020	1.389	1.811

(*) market sector without agriculture

[2] c:/usr/simulaties/update-sim/norm-basis.var

[3] c:/usr/simulaties/update-sim/vrij-basis.var

IV Additional reductions in employer social-security contributions

A. Limitations and caveats

1. Normal and special employment

Because HERMES is fine-tuned for normal year-to-year changes, additional wage cost reductions had better be confined to modest amounts. Four additional wage cost reductions - of which three ex ante 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 ('LLHL'), and (4) a general decrease in the employer social-security contribution rate on the special-programme wage bill by 2.5% (the wage subsidy rates are kept unchanged)('SP').

The ex ante wage cost reduction aimed at normal employment ('LL', 'HL', 'LLHL') 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 contribution rates that are equal across sectors in all cases and equal across low-wage and high-wage labour in the case of 'LLHL'. Moreover, because the amounts injected are constant in time, the fall in social-security contribution rates decreases over time.

Because the contribution rates on special employment are initially low, it is not possible to impose the same magnitude on the ex ante 'SP' reduction as for the low-wage and/or high-wage cost reductions[1]. Hence, except for the self-financing rate and the budgetary cost per additional job, the macroeconomic effects of 'SP' and the regular wage cost reductions are hard to compare

1. It would take a 10% fall in special-employment contribution rates to generate a similar ex ante reduction, implying negative contribution rates in some sectors.

2. Two sets of policy simulations

Two sets of simulations are presented[1]. 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[2].

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 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[3].

1. The tables in sections VIII, IX and X 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>.
2. 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.
3. 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 a 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.

3. 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.

4. 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.

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

In all sectors but financial services (CR), miscalleneous 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 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), miscalleneous 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.

6. 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.

7. Caveat: comparison with previous HERMES policy simulations

Differences between the policy simulations generated by the HERMES 2001 and later vintages and those obtained by previous vintages are not only due to the introduction of heterogeneity in the labour market and substitution across labour categories 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 reductions in social-security contributions whereas previous simulations imposed reductions that were larger in size and increasing in time (because defined as a fixed percentage of GDP)[1].

B. Reductions in employer social-security contributions in the case of wage benchmarking

The tables in section VIII compare the macroeconomic, labour market and public finance effects at time t+6 (2007) across policy measures. Macroeconomic and sectoral detail for 'LL', 'HL', 'LLHL' and 'SP' from time t+1 (2002) to t+6 (2007) is presented in section IX.

1. Employment and public finances

The net cost to the government per additional job varies enormously (between 28,370 and 55,050 euro) and substitution among the three types of labour is high.

The low-wage measure produces more additional employment (4,040 units) and a larger increase in GDP (0.030%) than the high-wage measure (1,530 units; 0.019%) or the general measure (1,840 units; 0.020%). Net substitution[2] between low-wage and high-wage labour 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 and low-

1. A survey of policy simulations with older HERMES vintages is in Stockman (2001a).
2. 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.

wage labour, be it at the expense of high-wage labour (1 high-wage job is lost for 2 additional special jobs)[1].

The self-financing rate is generally modest. The low-wage measure ('LL') appears most effective in terms of net budgetary cost per job (28,370 euro). However, its self-financing rate (only 13.3%) is lower than either a general ('LLHL') or a high-wage measure ('HL') which are self-financing at rates of 33.1% and 36.3%. The reason is that the low-wage measure destroys high-wage jobs and therefore income tax revenue and social-security contributions as well. In fact, the ex post fall in employer social-security contributions exceeds the ex ante cut. In spite of the relatively low net cost per job (36,090 euro), the special measure ('SP') does not look particularly cost effective with a poor self-financing rate of 10.2%. The reason is twofold: special-programme employment carries low contribution rates and the special measures destroys high-wage jobs[2].

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, financial services and consumer goods manufacturing.

1. 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 insentive 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 (24.3% in 2001) and OS (46.3% in 2001) and because HA and OS are big employers (19.5% and 21.3% 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 causalty 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.
2. Stockman (2001a) obtained a far higher degree of self-financing for the special measure (more than 30%) because the special-labour aggregate included the high social-security contributions paying 'Sociale Maribel'/'Maribel social' sector.

3. Aggregate demand

Private consumption depends highly on the real gross wage bill. Falling consumer pricesand increasing employment both raise real disposable income. 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 (0.027% vrs 0.021%).

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[1]. 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 and wage cost competitiveness. On aggregate, the low-wage cost reduction measure depresses investment economy-wide. In contrast, the high-wage and special-labour measures raise investment economy-wide.

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 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 criterion, 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 high-wage 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.

There are no compelling reasons to expand special employment policies because the special-programme measure does not perform better than either the low-wage measure or the high-wage measure.

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.

C. Reductions in employer social-security contributions in the case of free gross wage setting

The policy simulations are reported as differences with the free-wage regime baseline. The tables in section VIII compare the macro-economic, labour market and public finance effects at time t+6 (2007) across policy measures. Sectoral detail for 'LL', 'HL', 'LL+HL' and 'SP' from time t+1 (2002) to t+6 (2007) is presented in section X.

1. Employment and public finances

As in the case with wage benchmarking, the net cost to the government per additional job varies widely across policies (between 32,330 and 70,750 euro). In comparison, the net cost per job is substantially higher (especially of the high-wage measure: up to 70,750 euro from 55,050 euro), 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 41.8% from 13.3%) and the special measure (up to 30.1% from 10.2%).

The low-wage measure costs less per additional job than the high-wage measure (32,330 euro vrs 70,750 euro) and is equally self-financing (41.8% vrs 40.9%), making it more cost effective than the high-wage measure and the special 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 2,380 units (from 4,040 units) and 0.020% (from 0.030%) in the case of 'LL', down to 1,100 units (from 1,530 units) and 0.016% (from 0.019%) in the case of 'HL', and down to 610 units (from 900 units) and 0.005% (from 0.007%) 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 2 high-wage job for 3 additional special jobs. However, what is 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[1].

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

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.

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 on 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.

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.

3. Aggregate demand

The smaller drop in the labour cost per unit output accounts for the smaller increase in GDP if wage 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. The smaller improvement in competitiveness in a free-wage setting also implies a smaller increase in exports and a bigger increase in imports.

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.

V 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.

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 may be 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 for expanding special-employment programmes relies very much on considerations other than macro-economic effectiveness. In a wage-benchmark environment, 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. In a free-wage environment, the low-wage measure performs at least as well or better as the high-wage measure or the general measure.

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VII Appendum 1: Conditional employment programmes: an overview

A. Measures existing prior to 2002

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. Because fixed amounts are granted per employee, the subsidy as percentage of the gross wage may vary over time. 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 12,617 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.

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. The employer is exempt from social-security contributions altogether and also receives a wage subsidy per head. The programme is to be phased out gradually as from 2002 and will be absorbed by the generalised 'Plan Activa'-programme.

'Plan-plus-1-plus-2-plus-3' is restricted to the first three additional employees in business start-ups for up to 3 years. Employers 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 and is to be phased out gradually as from 2002. Employees are entitled to reductions similar in size as the 'Plan-plus-1-2-3'-jobs.

The 'Startbanen'/'Conventions premier emploi'-programme imposes hiring quota's (relative to employment in a reference quarter) on firms employing more than 50 people. Two quota's apply: quota imposed on individual firms (3% or more) and a sector-wide 5% quota. Violations of the quota are subjected to prohibitive financial penalties. Exemptions are granted to troubled firms. If the 3%-quota are met, firms are entitled to additional reductions in employer social-security contributions on top of the regular reductions to the tune of 495 euro per young low-skilled worker per quarter. Furthermore, even more generous reduc-

tions in employer social-security contributions are to encourage firms to hire beyond the quota: 1,150 euro per head per quarter for low-skilled young workers filling the 3%-less-than-5%-range; 1,150 euro per head per quarter for all low-skilled young workers if a 5%-quotum is met. The hiring is on the basis of 1-year contracts.

To further continuous employment after expiry of the start job contract, the firm may be entitled to a lasting reduction in employer social-security contribution equal to 10% of the gross wage if the former start job employee is hired on a regular contract of undeterminate duration and if this constitutes a net increase in employment by the firm.

B. Measures existing as from 2002

'Plan Activa' supposedly streamlines the relief jobs aimed at the long-term, low-skilled unemployed and will gradually supplant 'Dienstenbanen'/'Emplois service' and 'Voordeelbanen'/'Emplois plan avantage à l'embauche'. Exemptions of employer social-security contributions can be as high as 75%. Some categories will qualify for the activation of unemployment benefits, to be interpreted as wage subsidies.

VIII Appendum 2: Medium-term policy simulation results (t+6)

A. Wage benchmark

	2007[2-1]	2007[3-1]	2007[4-1]	2007[5-1]
AGGREGATE DEMAND (in real terms - percentage difference)				
GDP	0.030	0.019	0.020	0.007
Private consumption	0.021	0.027	0.026	0.006
Gross capital formation	-0.006	0.014	0.011	0.000
Domestic absorption	0.013	0.020	0.019	0.004
Exports of goods and services	0.021	0.009	0.010	0.004
Imports of goods and services	0.004	0.011	0.010	0.001
p.m. Real disposable household income	0.016	0.029	0.027	0.005
PRICES (percentage difference)				
Private consumer price index	-0.071	-0.021	-0.027	-0.014
BBP deflator	-0.086	-0.029	-0.035	-0.018
GOVERNMENT FINANCES				
Ex ante budgetary cost (millions of euro)	132.366	132.366	132.366	36.364
Change in government surplus (millions of euro)	-114.789	-84.317	-88.541	-32.661
Change in government surplus (% of GDP)	-0.034	-0.025	-0.027	-0.010
Self-finance rate (% of ex ante cost)	13.279	36.300	33.109	10.183
Net budgetary cost per additional job (1000 euro)	28.368	55.053	48.036	36.085
LABOUR MARKET (absolute difference - in 1000)				
Employment (incl. self-employed and non-market)	4.046	1.532	1.843	0.905
Wage-earning employment (*)	3.287	1.359	1.602	0.773
Low wage-earning employment (*)	4.903	-0.147	0.507	0.347
High wage-earning employment (*)	-1.719	1.499	1.075	-0.434
Special employment (*)	0.103	0.007	0.019	0.860
LABOUR MARKET (percentage difference)				
Employment (incl. self-employed and non-market)	0.098	0.037	0.044	0.022
Wage-earning employment (*)	0.125	0.052	0.061	0.029
Low wage-earning employment (*)	0.669	-0.020	0.069	0.048
High wage-earning employment (*)	-0.094	0.082	0.059	-0.024
Special employment (*)	0.175	0.012	0.033	1.459
COMPETITIVENESS				
Gross operating surplus rate (% of value added) (absolute change)	0.066	0.020	0.027	0.016
Real wage cost per employee (market sector) (per-centage change)	-0.209	-0.072	-0.090	-0.050
Nominal labour cost per unit output (market sector) (percentage difference)	-0.207	-0.075	-0.091	-0.048

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LL.var
[3] c:/usr/simulaties/update-sim/norm-HL.var
[4] c:/usr/simulaties/update-sim/norm-LLHL.var
[5] c:/usr/simulaties/update-sim/norm-SP.var

Government finances
(absolute differences with baseline - millions of euro)

	07[2-1]	07[3-1]	07[4-1]	07[5-1]
1. Surplus	-114.789	-84.317	-88.541	-32.661
- p.m.: surplus as % of GDP	-0.034	-0.025	-0.027	-0.010
2. Receipts	-200.281	-91.424	-104.735	-47.638
- of which direct taxes on non-corporate income	-38.532	11.735	5.376	-5.771
- of which direct taxes on corporate income	22.340	9.810	11.589	5.892
- of which indirect taxes	-17.155	-0.072	-2.113	-2.779
- of which social-security contributions	-163.323	-112.142	-118.500	-44.273
3. Expenditure excl. interest payments	-111.611	-30.018	-39.590	-21.541
- of which government operating costs	-22.742	-6.377	-8.239	-4.420
- of which pension entitlements	-19.301	-5.737	-7.280	-3.739
- of which health care	-12.241	-2.994	-4.051	-2.435
- of which unemployment entitlements	-33.541	-12.228	-14.840	-7.409
- of which current transfers to firms	-2.404	-0.418	-0.643	0.616
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.221	-0.092	-0.105	1.050
4. Interest payments	26.139	22.915	23.401	6.569

[1] c:/usr/simulaties/update-sim/norm-basis.var
[2] c:/usr/simulaties/update-sim/norm-LL.var
[3] c:/usr/simulaties/update-sim/norm-HL.var
[4] c:/usr/simulaties/update-sim/norm-LLHL.var
[5] c:/usr/simulaties/update-sim/norm-SP.var

Employment and output by branch
(Differences in % of baseline)

	2007[2/1]	2007[3/1]	2007[4/1]	2007[5/1]
ADDED VALUE (constant prices)				
- Agriculture	0.057	0.016	0.017	0.005
- Energy	-0.008	0.010	0.007	0.000
- Manufacturing	0.040	0.020	0.022	0.007
. Intermediate goods	0.021	0.015	0.016	0.005
. Investment goods	0.029	0.020	0.021	0.006
. Consumer goods	0.073	0.026	0.030	0.011
- Construction	0.004	0.014	0.012	0.003
- Transport and communication	0.047	0.025	0.027	0.008
- Commerce and horeca	0.029	0.017	0.019	0.007
- Financial services	0.046	0.036	0.037	0.012
- Health care	0.037	0.025	0.026	0.012
- Miscellaneous services	0.035	0.021	0.023	0.008
Total market sector	0.034	0.020	0.021	0.007
EMPLOYMENT				
- Agriculture	0.083	0.016	0.016	0.002
- Energy	0.008	0.030	0.027	0.001
- Manufacturing	0.060	0.041	0.043	0.011
. Intermediate goods	0.019	0.026	0.025	0.005
. Investment goods	0.036	0.048	0.046	0.008
. Consumer goods	0.106	0.048	0.054	0.017
- Construction	0.035	0.046	0.044	0.041
- Transport and communications	0.120	0.052	0.061	0.017
- Commerce and horeca	0.157	0.040	0.055	0.031
- Financial services	0.051	0.056	0.055	0.016
- Health care	0.134	0.062	0.072	0.038
- Miscellaneous services	0.185	0.044	0.062	0.035
Total market sector	0.122	0.046	0.056	0.027

[1] c:/usr/simulaties/update-sim/norm-basis.var
[2] c:/usr/simulaties/update-sim/norm-LL.var
[3] c:/usr/simulaties/update-sim/norm-HL.var
[4] c:/usr/simulaties/update-sim/norm-LLHL.var
[5] c:/usr/simulaties/update-sim/norm-SP.var
(/) Growth Rates

B. Free wages

	2007[2-1]	2007[3-1]	2007[4-1]	2007[5-1]
AGGREGATE DEMAND (in real terms - percentage difference)				
GDP	0.020	0.016	0.016	0.005
Private consumption	0.029	0.029	0.028	0.008
Gross capital formation	-0.006	0.016	0.013	0.001
Domestic absorption	0.018	0.022	0.021	0.006
Exports of goods and services	0.011	0.007	0.007	0.002
Imports of goods and services	0.009	0.012	0.011	0.002
p.m. Real disposable household income	0.034	0.031	0.031	0.009
PRICES (percentage difference)				
Private consumer price index	-0.035	-0.012	-0.015	-0.007
BBP deflator	-0.036	-0.018	-0.020	-0.009
GOVERNMENT FINANCES				
Ex ante budgetary cost (millions of euro)	132.249	132.249	132.249	36.231
Change in government surplus (millions of euro)	-76.994	-78.116	-78.480	-25.314
Change in government surplus (% of GDP)	-0.023	-0.024	-0.024	-0.008
Self-finance rate (% of ex ante cost)	41.781	40.932	40.657	30.133
Net budgetary cost per additional job (1000 euro)	32.330	70.755	61.939	41.466
LABOUR MARKET (absolute difference - in 1000)				
Employment (incl. self-employed and non-market)	2.382	1.104	1.267	0.610
Wage-earning employment (*)	1.907	1.017	1.135	0.525
Low wage-earning employment (*)	4.438	-0.254	0.358	0.273
High wage-earning employment (*)	-2.582	1.276	0.775	-0.576
Special employment (*)	0.052	-0.005	0.003	0.828
LABOUR MARKET (percentage difference)				
Employment (incl. self-employed and non-market)	0.057	0.027	0.031	0.015
Wage-earning employment (*)	0.073	0.039	0.044	0.020
Low wage-earning employment (*)	0.607	-0.035	0.049	0.037
High wage-earning employment (*)	-0.142	0.070	0.043	-0.032
Special employment (*)	0.091	-0.008	0.005	1.438
COMPETITIVENESS				
Gross operating surplus rate (% of value added) (absolute change)	0.023	0.012	0.013	0.008
Real wage cost per employee (market sector) (percentage change)	-0.094	-0.047	-0.054	-0.029
Nominal labour cost per unit output (market sector) (percentage difference)	-0.081	-0.050	-0.054	-0.024

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

[3] c:/usr/simulaties/update-sim/vrij-HL.var

[4] c:/usr/simulaties/update-sim/vrij-LLHL.var

[5] c:/usr/simulaties/update-sim/vrij-SP.var

Government finances
(absolute differences with baseline - millions of euro)

	2007[2-1]	2007[3-1]	2007[4-1]	2007[5-1]
1. Surplus	-76.994	-78.116	-78.480	-25.314
- p.m.: surplus as % of GDP	-0.023	-0.024	-0.024	-0.008
2. Receipts	-106.907	-72.158	-76.529	-30.350
- of which direct taxes on non-corporate income	9.129	21.703	19.874	3.006
- of which direct taxes on corporate income	8.218	6.955	7.391	3.073
- of which indirect taxes	-3.388	3.081	2.328	-0.089
- of which social-security contributions	-119.575	-103.664	-105.774	-36.050
3. Expenditure excl. interest payments	-52.253	-16.007	-20.154	-10.903
- of which government operating costs	-10.818	-3.443	-4.236	-2.229
- of which pension entitlements	-9.551	-3.293	-3.970	-1.945
- of which health care	-5.977	-1.467	-1.956	-1.286
- of which unemployment entitlements	-19.144	-8.606	-9.928	-4.861
- of which current transfers to firms	-0.816	-0.058	-0.136	0.867
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.096	-0.059	-0.061	1.030
4. Interest payments	22.346	21.966	22.106	5.868

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

[3] c:/usr/simulaties/update-sim/vrij-HL.var

[4] c:/usr/simulaties/update-sim/vrij-LLHL.var

[5] c:/usr/simulaties/update-sim/vrij-SP.var

Employment and output by branch
(Differences in % of baseline)

	2007[2/1]	2007[3/1]	2007[4/1]	2007[5/1]
ADDED VALUE (constant prices)				
- Agriculture	0.045	0.015	0.015	0.003
- Energy	-0.003	0.010	0.009	0.001
- Manufacturing	0.017	0.015	0.015	0.003
. Intermediate goods	0.010	0.014	0.014	0.003
. Investment goods	-0.007	0.009	0.007	-0.001
. Consumer goods	0.046	0.021	0.023	0.006
- Construction	0.000	0.014	0.012	0.004
- Transport and communication	0.034	0.023	0.024	0.006
- Commerce and horeca	0.022	0.015	0.016	0.006
- Financial services	0.043	0.034	0.035	0.012
- Health care	0.035	0.026	0.027	0.011
- Miscellaneous services	0.023	0.017	0.018	0.006
Total market sector	0.022	0.017	0.018	0.005
EMPLOYMENT				
- Agriculture	0.078	0.016	0.015	0.002
- Energy	0.011	0.037	0.034	0.003
- Manufacturing	0.025	0.031	0.030	0.004
. Intermediate goods	0.012	0.028	0.026	0.004
. Investment goods	-0.032	0.021	0.014	-0.006
. Consumer goods	0.070	0.039	0.043	0.010
- Construction	-0.047	0.033	0.023	0.037
- Transport and communications	0.080	0.052	0.056	0.009
- Commerce and horeca	0.117	0.023	0.035	0.023
- Financial services	0.031	0.052	0.049	0.012
- Health care	0.099	0.056	0.062	0.028
- Miscellaneous services	0.099	0.022	0.032	0.021
Total market sector	0.072	0.033	0.038	0.018

[1] c:/usr/simulaties/update-sim/vrij-basis.var
[2] c:/usr/simulaties/update-sim/vrij-LL.var
[3] c:/usr/simulaties/update-sim/vrij-HL.var
[4] c:/usr/simulaties/update-sim/vrij-LLHL.var
[5] c:/usr/simulaties/update-sim/vrij-SP.var
(/) Growth Rates

IX Appendum 3: Transitional and medium-term simulation results in an economy with wage benchmarking

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
3. Manufacturing	-1.287	-1.220	-1.161	-1.105	-1.051	-1.001
3.1. Intermediate goods	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
3.2. Investment goods	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
3.3. Consumer goods	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
4. Construction	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
5. Tradeable services	-1.287	-1.219	-1.160	-1.103	-1.049	-1.000
5.1. Transport and communication	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
5.2. Commerce and horeca	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
5.3. Financial services	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
5.4. Health care	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
5.5. Miscellaneous services	-1.287	-1.220	-1.161	-1.105	-1.051	-1.002
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	0.000	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

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	-0.000	-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

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LL.var

(-) Differences

Government finances

(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-87.006	-89.239	-95.300	-103.110	-112.438	-114.789
- p.m.: surplus as % of GDP	-0.033	-0.032	-0.033	-0.034	-0.035	-0.034
2. Receipts	-112.970	-137.513	-158.517	-178.522	-197.339	-200.281
- of which direct taxes on non-corporate income	-7.456	-15.503	-23.676	-32.182	-39.569	-38.532
- of which direct taxes on corporate income	23.200	22.768	23.493	24.491	25.396	22.340
- of which indirect taxes	3.245	-2.112	-6.659	-10.774	-14.937	-17.155
- of which social-security contributions	-131.351	-141.126	-149.454	-157.234	-164.859	-163.323
3. Expenditure excl. interest payments	-26.719	-52.311	-72.151	-89.175	-104.372	-111.611
- of which government operating costs	-5.862	-11.397	-15.388	-18.700	-21.544	-22.742
- of which pension entitlements	-5.465	-9.950	-13.185	-15.896	-18.260	-19.301
- of which health care	-0.010	-3.596	-6.444	-8.751	-10.786	-12.241
- of which unemployment entitlements	-12.254	-17.547	-22.795	-27.361	-31.636	-33.541
- of which current transfers to firms	-0.199	-0.976	-1.480	-1.910	-2.276	-2.404
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.091	-0.145	-0.164	-0.189	-0.215	-0.221
4. Interest payments	0.757	4.045	8.945	13.778	19.490	26.139

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LL.var

	02[2-1]	03[2-1]	04[2-1]	05[2-1]	06[2-1]	07[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.020	0.024	0.027	0.029	0.030	0.030
Private consumption	0.036	0.035	0.032	0.028	0.024	0.021
Gross capital formation	0.003	-0.006	-0.004	-0.003	-0.005	-0.006
Domestic absorption	0.026	0.022	0.021	0.019	0.015	0.013
Exports of goods and services	0.004	0.010	0.014	0.017	0.020	0.021
Imports of goods and services	0.009	0.007	0.006	0.005	0.004	0.004
p.m. Real disposable household income	0.021	0.020	0.019	0.017	0.014	0.016
PRICES (percentage difference)						
Private consumer price index	-0.024	-0.042	-0.053	-0.062	-0.069	-0.071
BBP deflator	-0.030	-0.049	-0.064	-0.075	-0.084	-0.086
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.366	132.366	132.366	132.366	132.366	132.366
Change in government surplus (millions of euro)	-87.006	-89.239	-95.300	-103.110	-112.438	-114.789
Change in government surplus (% of GDP)	-0.033	-0.032	-0.033	-0.034	-0.035	-0.034
Self-finance rate (% of ex ante cost)	34.269	32.581	28.003	22.103	15.055	13.279
Net budgetary cost per additional job (1000 euro)	52.028	38.496	32.253	29.673	28.709	28.368
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.672	2.318	2.955	3.475	3.916	4.046
Wage-earning employment (*)	1.281	1.842	2.338	2.768	3.145	3.287
Low wage-earning employment (*)	1.300	2.339	3.299	4.194	5.013	4.903
High wage-earning employment (*)	-0.061	-0.556	-1.035	-1.512	-1.965	-1.719
Special employment (*)	0.042	0.059	0.074	0.087	0.097	0.103
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.042	0.058	0.073	0.085	0.095	0.098
Wage-earning employment (*)	0.053	0.074	0.093	0.108	0.121	0.125
Low wage-earning employment (*)	0.196	0.342	0.473	0.591	0.694	0.669
High wage-earning employment (*)	-0.004	-0.032	-0.058	-0.084	-0.108	-0.094
Special employment (*)	0.082	0.112	0.137	0.156	0.170	0.175
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.066	0.071	0.073	0.075	0.076	0.066
Real wage cost per employee (market sector) (percentage change)	-0.140	-0.164	-0.185	-0.204	-0.219	-0.209
Nominal labour cost per unit output (market sector) (percentage difference)	-0.139	-0.166	-0.187	-0.204	-0.218	-0.207

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LL.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.039	0.044	0.049	0.052	0.055	0.057
- Energy	0.008	0.003	-0.001	-0.004	-0.007	-0.008
- Manufacturing	0.016	0.021	0.027	0.032	0.037	0.040
. Intermediate goods	0.004	0.011	0.015	0.018	0.020	0.021
. Investment goods	0.012	0.013	0.018	0.023	0.025	0.029
. Consumer goods	0.035	0.040	0.050	0.059	0.067	0.073
- Construction	0.010	0.003	0.006	0.007	0.005	0.004
- Transport and communication	0.031	0.032	0.039	0.042	0.046	0.047
- Commerce and horeca	0.021	0.029	0.031	0.031	0.030	0.029
- Financial services	0.046	0.057	0.058	0.056	0.052	0.046
- Health care	0.039	0.043	0.043	0.043	0.041	0.037
- Miscellaneous services	0.022	0.026	0.031	0.034	0.035	0.035
Total market sector	0.022	0.026	0.030	0.032	0.034	0.034
EMPLOYMENT						
- Agriculture	0.040	0.059	0.070	0.077	0.081	0.083
- Energy	0.004	0.004	0.004	0.005	0.006	0.008
- Manufacturing	0.012	0.018	0.028	0.038	0.050	0.060
. Intermediate goods	0.001	0.004	0.006	0.010	0.014	0.019
. Investment goods	0.005	0.009	0.015	0.022	0.029	0.036
. Consumer goods	0.024	0.035	0.052	0.070	0.089	0.106
- Construction	0.028	0.027	0.033	0.037	0.038	0.035
- Transport and communications	0.085	0.095	0.107	0.115	0.122	0.120
- Commerce and horeca	0.046	0.079	0.106	0.128	0.147	0.157
- Financial services	0.018	0.029	0.038	0.045	0.051	0.051
- Health care	0.067	0.092	0.110	0.123	0.133	0.134
- Miscellaneous services	0.097	0.124	0.155	0.176	0.191	0.185
Total market sector	0.053	0.073	0.092	0.107	0.119	0.122

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LL.var

(/) Growth Rates

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-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	-0.000	-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
HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
3. Manufacturing	-0.191	-0.182	-0.174	-0.167	-0.159	-0.152
3.1. Intermediate goods	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
3.2. Investment goods	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
3.3. Consumer goods	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
4. Construction	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5. Tradeable services	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5.1. Transport and communication	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5.2. Commerce and horeca	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5.3. Financial services	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5.4. Health care	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
5.5. Miscellaneous services	-0.190	-0.182	-0.174	-0.166	-0.159	-0.152
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	-0.000	-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

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-HL.var

(-) Differences

Government finances
(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-83.240	-77.627	-76.697	-77.515	-79.801	-84.317
- p.m.: surplus as % of GDP	-0.031	-0.028	-0.026	-0.026	-0.025	-0.025
2. Receipts	-99.725	-100.249	-98.691	-95.992	-92.657	-91.424
- of which direct taxes on non-corporate income	2.131	4.786	7.010	8.978	11.012	11.735
- of which direct taxes on corporate income	17.927	15.212	13.375	11.818	10.382	9.810
- of which indirect taxes	2.628	1.207	0.434	0.135	0.064	-0.072
- of which social-security contributions	-121.996	-120.731	-118.682	-116.080	-113.321	-112.142
3. Expenditure excl. interest payments	-17.517	-27.166	-31.102	-31.873	-30.830	-30.018
- of which government operating costs	-3.819	-6.016	-6.824	-6.970	-6.670	-6.377
- of which pension entitlements	-3.556	-5.342	-6.005	-6.149	-5.939	-5.737
- of which health care	-0.001	-1.947	-2.842	-3.156	-3.140	-2.994
- of which unemployment entitlements	-8.389	-10.054	-11.338	-11.841	-12.021	-12.228
- of which current transfers to firms	-0.131	-0.436	-0.526	-0.533	-0.481	-0.418
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.061	-0.085	-0.090	-0.097	-0.100	-0.092
4. Interest payments	1.034	4.548	9.112	13.401	17.978	22.915

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-HL.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.017	0.020	0.021	0.021	0.020	0.019
Private consumption	0.029	0.031	0.031	0.030	0.029	0.027
Gross capital formation	0.009	0.009	0.014	0.016	0.015	0.014
Domestic absorption	0.022	0.022	0.023	0.022	0.022	0.020
Exports of goods and services	0.003	0.008	0.009	0.010	0.010	0.009
Imports of goods and services	0.008	0.009	0.011	0.011	0.011	0.011
p.m. Real disposable household income	0.021	0.025	0.027	0.028	0.029	0.029
PRICES (percentage difference)						
Private consumer price index	-0.016	-0.022	-0.024	-0.024	-0.023	-0.021
BBP deflator	-0.024	-0.031	-0.033	-0.033	-0.031	-0.029
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.366	132.366	132.366	132.366	132.366	132.366
Change in government surplus (millions of euro)	-83.240	-77.627	-76.697	-77.515	-79.801	-84.317
Change in government surplus (% of GDP)	-0.031	-0.028	-0.026	-0.026	-0.025	-0.025
Self-finance rate (% of ex ante cost)	37.114	41.354	42.057	41.439	39.712	36.300
Net budgetary cost per additional job (1000 euro)	72.312	57.690	51.249	50.309	51.861	55.053
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.151	1.346	1.497	1.541	1.539	1.532
Wage-earning employment (*)	0.947	1.158	1.285	1.338	1.353	1.359
Low wage-earning employment (*)	0.157	0.112	0.037	-0.059	-0.162	-0.147
High wage-earning employment (*)	0.766	1.023	1.229	1.383	1.509	1.499
Special employment (*)	0.024	0.023	0.019	0.013	0.006	0.007
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.029	0.034	0.037	0.038	0.037	0.037
Wage-earning employment (*)	0.039	0.047	0.051	0.052	0.052	0.052
Low wage-earning employment (*)	0.024	0.016	0.005	-0.008	-0.022	-0.020
High wage-earning employment (*)	0.044	0.058	0.069	0.077	0.083	0.082
Special employment (*)	0.047	0.044	0.036	0.024	0.010	0.012
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.048	0.041	0.034	0.028	0.023	0.020
Real wage cost per employee (market sector) (percentage change)	-0.106	-0.098	-0.091	-0.083	-0.076	-0.072
Nominal labour cost per unit output (market sector) (percentage difference)	-0.111	-0.108	-0.100	-0.091	-0.081	-0.075

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-HL.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.022	0.020	0.019	0.018	0.017	0.016
- Energy	0.009	0.010	0.009	0.010	0.010	0.010
- Manufacturing	0.016	0.021	0.022	0.022	0.021	0.020
. Intermediate goods	0.007	0.015	0.017	0.017	0.016	0.015
. Investment goods	0.016	0.021	0.024	0.023	0.022	0.020
. Consumer goods	0.027	0.028	0.028	0.028	0.027	0.026
- Construction	0.012	0.011	0.015	0.016	0.015	0.014
- Transport and communication	0.024	0.025	0.028	0.027	0.026	0.025
- Commerce and horeca	0.015	0.021	0.022	0.021	0.019	0.017
- Financial services	0.036	0.044	0.044	0.042	0.039	0.036
- Health care	0.030	0.031	0.029	0.028	0.026	0.025
- Miscellaneous services	0.018	0.021	0.023	0.023	0.022	0.021
Total market sector	0.018	0.022	0.023	0.023	0.022	0.020
EMPLOYMENT						
- Agriculture	0.009	0.013	0.015	0.016	0.016	0.016
- Energy	0.005	0.010	0.015	0.020	0.025	0.030
- Manufacturing	0.011	0.017	0.023	0.030	0.036	0.041
. Intermediate goods	0.003	0.007	0.011	0.016	0.021	0.026
. Investment goods	0.008	0.017	0.026	0.034	0.042	0.048
. Consumer goods	0.018	0.025	0.031	0.038	0.044	0.048
- Construction	0.057	0.052	0.054	0.053	0.049	0.046
- Transport and communications	0.058	0.058	0.059	0.056	0.054	0.052
- Commerce and horeca	0.022	0.034	0.039	0.041	0.041	0.040
- Financial services	0.044	0.053	0.057	0.058	0.057	0.056
- Health care	0.049	0.060	0.064	0.065	0.063	0.062
- Miscellaneous services	0.054	0.054	0.057	0.054	0.048	0.044
Total market sector	0.037	0.042	0.047	0.047	0.047	0.046

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-HL.var

(/) Growth Rates

C. The low-wage cum high-wage measure (scenario 'LLHL')

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3. Manufacturing	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3.1. Intermediate goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3.2. Investment goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3.3. Consumer goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
4. Construction	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5. Tradeable services	-0.166	-0.159	-0.152	-0.145	-0.138	-0.132
5.1. Transport and communication	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.2. Commerce and horeca	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.3. Financial services	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.4. Health care	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.5. Miscellaneous services	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3. Manufacturing	-0.167	-0.159	-0.152	-0.145	-0.139	-0.132
3.1. Intermediate goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3.2. Investment goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
3.3. Consumer goods	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
4. Construction	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5. Tradeable services	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.1. Transport and communication	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.2. Commerce and horeca	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.3. Financial services	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.4. Health care	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
5.5. Miscellaneous services	-0.167	-0.159	-0.152	-0.145	-0.138	-0.132
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	-0.000	-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

[1] c:/usr/simulaties/update-sim/norm-basis.var
[2] c:/usr/simulaties/update-sim/norm-LLHL.var
(-) Differences

Government finances

(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-83.717	-79.153	-79.192	-80.973	-84.222	-88.541
- p.m.: surplus as % of GDP	-0.032	-0.028	-0.027	-0.027	-0.027	-0.027
2. Receipts	-101.279	-104.689	-105.903	-106.011	-105.438	-104.735
- of which direct taxes on non-corporate income	0.958	2.275	3.163	3.795	4.631	5.376
- of which direct taxes on corporate income	18.638	16.264	14.789	13.580	12.460	11.589
- of which indirect taxes	2.693	0.808	-0.411	-1.163	-1.731	-2.113
- of which social-security contributions	-123.134	-123.224	-122.460	-121.156	-119.706	-118.500
3. Expenditure excl. interest payments	-18.566	-30.034	-35.824	-38.525	-39.441	-39.590
- of which government operating costs	-4.036	-6.606	-7.774	-8.284	-8.359	-8.239
- of which pension entitlements	-3.759	-5.848	-6.804	-7.243	-7.339	-7.280
- of which health care	-0.002	-2.129	-3.242	-3.783	-4.007	-4.051
- of which unemployment entitlements	-8.864	-10.966	-12.736	-13.737	-14.424	-14.840
- of which current transfers to firms	-0.138	-0.492	-0.629	-0.687	-0.684	-0.643
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.064	-0.091	-0.097	-0.105	-0.111	-0.105
4. Interest payments	1.006	4.502	9.118	13.492	18.231	23.401

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LLHL.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.017	0.020	0.022	0.021	0.021	0.020
Private consumption	0.030	0.031	0.030	0.029	0.028	0.026
Gross capital formation	0.008	0.007	0.012	0.013	0.012	0.011
Domestic absorption	0.022	0.022	0.022	0.022	0.021	0.019
Exports of goods and services	0.003	0.008	0.010	0.010	0.011	0.010
Imports of goods and services	0.008	0.009	0.010	0.010	0.010	0.010
p.m. Real disposable household income	0.021	0.024	0.026	0.026	0.027	0.027
PRICES (percentage difference)						
Private consumer price index	-0.017	-0.025	-0.028	-0.028	-0.028	-0.027
BBP deflator	-0.024	-0.033	-0.037	-0.037	-0.037	-0.035
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.366	132.366	132.366	132.366	132.366	132.366
Change in government surplus (millions of euro)	-83.717	-79.153	-79.192	-80.973	-84.222	-88.541
Change in government surplus (% of GDP)	-0.032	-0.028	-0.027	-0.027	-0.027	-0.027
Self-finance rate (% of ex ante cost)	36.754	40.201	40.172	38.826	36.372	33.109
Net budgetary cost per additional job (1000 euro)	68.827	53.997	47.228	45.491	45.941	48.036
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.216	1.466	1.677	1.780	1.833	1.843
Wage-earning employment (*)	0.991	1.246	1.419	1.519	1.579	1.602
Low wage-earning employment (*)	0.305	0.400	0.458	0.490	0.507	0.507
High wage-earning employment (*)	0.660	0.819	0.935	1.006	1.055	1.075
Special employment (*)	0.026	0.028	0.026	0.023	0.017	0.019
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.031	0.037	0.041	0.044	0.044	0.044
Wage-earning employment (*)	0.041	0.050	0.056	0.059	0.061	0.061
Low wage-earning employment (*)	0.046	0.059	0.066	0.069	0.070	0.069
High wage-earning employment (*)	0.038	0.047	0.053	0.056	0.058	0.059
Special employment (*)	0.052	0.052	0.049	0.041	0.031	0.033
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.050	0.045	0.040	0.035	0.030	0.027
Real wage cost per employee (market sector) (percentage change)	-0.110	-0.106	-0.103	-0.099	-0.094	-0.090
Nominal labour cost per unit output (market sector) (percentage difference)	-0.114	-0.115	-0.111	-0.105	-0.098	-0.091

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-LLHL.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.022	0.021	0.019	0.019	0.018	0.017
- Energy	0.009	0.009	0.008	0.008	0.008	0.007
- Manufacturing	0.016	0.020	0.023	0.023	0.022	0.022
. Intermediate goods	0.006	0.014	0.017	0.017	0.017	0.016
. Investment goods	0.016	0.020	0.023	0.023	0.022	0.021
. Consumer goods	0.028	0.029	0.030	0.030	0.030	0.030
- Construction	0.012	0.010	0.014	0.015	0.014	0.012
- Transport and communication	0.025	0.026	0.029	0.029	0.028	0.027
- Commerce and horeca	0.016	0.022	0.023	0.022	0.020	0.019
- Financial services	0.037	0.046	0.046	0.043	0.040	0.037
- Health care	0.031	0.032	0.031	0.030	0.028	0.026
- Miscellaneous services	0.019	0.022	0.024	0.024	0.024	0.023
Total market sector	0.019	0.022	0.024	0.023	0.023	0.021
EMPLOYMENT						
- Agriculture	0.008	0.012	0.014	0.015	0.015	0.016
- Energy	0.005	0.009	0.013	0.018	0.023	0.027
- Manufacturing	0.011	0.017	0.024	0.030	0.037	0.043
. Intermediate goods	0.003	0.006	0.010	0.015	0.020	0.025
. Investment goods	0.008	0.016	0.025	0.033	0.040	0.046
. Consumer goods	0.019	0.025	0.033	0.041	0.049	0.054
- Construction	0.053	0.049	0.051	0.050	0.048	0.044
- Transport and communications	0.062	0.063	0.065	0.064	0.063	0.061
- Commerce and horeca	0.025	0.039	0.047	0.052	0.054	0.055
- Financial services	0.041	0.050	0.054	0.056	0.056	0.055
- Health care	0.051	0.065	0.070	0.072	0.073	0.072
- Miscellaneous services	0.060	0.063	0.070	0.069	0.066	0.062
Total market sector	0.039	0.046	0.052	0.055	0.056	0.056

[1] c:/usr/simulaties/update-sim/norm-basis.var
[2] c:/usr/simulaties/update-sim/norm-LLHL.var
(/) Growth Rates

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-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	0.000	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
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	0.000	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
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	-2.500	-2.500	-2.501	-2.501	-2.501	-2.501
5.1. Transport and communication	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
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/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-SP.var

(-) Differences

Government finances
(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-17.812	-19.758	-22.678	-26.177	-30.222	-32.661
- p.m.: surplus as % of GDP	-0.007	-0.007	-0.008	-0.009	-0.010	-0.010
2. Receipts	-22.622	-28.219	-33.486	-39.008	-44.776	-47.638
- of which direct taxes on non-corporate income	-0.823	-1.901	-3.078	-4.411	-5.657	-5.771
- of which direct taxes on corporate income	4.278	4.597	4.999	5.487	5.995	5.892
- of which indirect taxes	0.747	-0.121	-0.895	-1.609	-2.351	-2.779
- of which social-security contributions	-26.707	-30.518	-34.111	-37.954	-42.126	-44.273
3. Expenditure excl. interest payments	-4.988	-9.374	-12.849	-16.098	-19.320	-21.541
- of which government operating costs	-1.057	-2.034	-2.760	-3.414	-4.031	-4.420
- of which pension entitlements	-0.979	-1.772	-2.362	-2.899	-3.410	-3.739
- of which health care	-0.002	-0.658	-1.185	-1.637	-2.073	-2.435
- of which unemployment entitlements	-2.483	-3.470	-4.570	-5.616	-6.698	-7.409
- of which current transfers to firms	0.018	0.053	0.258	0.452	0.611	0.616
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	0.038	0.198	0.492	0.767	1.000	1.050
4. Interest payments	0.178	0.914	2.043	3.270	4.770	6.569

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-SP.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.004	0.005	0.005	0.006	0.006	0.007
Private consumption	0.007	0.007	0.007	0.007	0.006	0.006
Gross capital formation	0.001	-0.001	-0.000	0.000	0.000	0.000
Domestic absorption	0.005	0.005	0.005	0.005	0.005	0.004
Exports of goods and services	0.001	0.001	0.002	0.003	0.003	0.004
Imports of goods and services	0.002	0.002	0.001	0.001	0.001	0.001
p.m. Real disposable household income	0.004	0.005	0.005	0.005	0.005	0.005
PRICES (percentage difference)						
Private consumer price index	-0.004	-0.007	-0.010	-0.011	-0.013	-0.014
BBP deflator	-0.006	-0.009	-0.012	-0.014	-0.017	-0.018
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	27.091	28.817	30.502	32.360	34.390	36.364
Change in government surplus (millions of euro)	-17.812	-19.758	-22.678	-26.177	-30.222	-32.661
Change in government surplus (% of GDP)	-0.007	-0.007	-0.008	-0.009	-0.010	-0.010
Self-finance rate (% of ex ante cost)	34.250	31.437	25.651	19.105	12.119	10.183
Net budgetary cost per additional job (1000 euro)	51.881	42.475	37.720	36.183	35.944	36.085
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	0.343	0.465	0.601	0.723	0.841	0.905
Wage-earning employment (*)	0.274	0.387	0.499	0.606	0.711	0.773
Low wage-earning employment (*)	0.106	0.168	0.226	0.279	0.330	0.347
High wage-earning employment (*)	0.007	-0.102	-0.213	-0.332	-0.454	-0.434
Special employment (*)	0.160	0.321	0.486	0.658	0.835	0.860
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.009	0.012	0.015	0.018	0.020	0.022
Wage-earning employment (*)	0.011	0.016	0.020	0.024	0.027	0.029
Low wage-earning employment (*)	0.016	0.025	0.032	0.039	0.046	0.048
High wage-earning employment (*)	0.000	-0.006	-0.012	-0.019	-0.025	-0.024
Special employment (*)	0.314	0.606	0.894	1.176	1.450	1.459
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.012	0.014	0.015	0.016	0.017	0.016
Real wage cost per employee (market sector) (percentage change)	-0.027	-0.033	-0.039	-0.044	-0.049	-0.050
Nominal labour cost per unit output (market sector) (percentage difference)	-0.027	-0.033	-0.038	-0.043	-0.047	-0.048

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-SP.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.005	0.004	0.004	0.004	0.005	0.005
- Energy	0.002	0.001	0.001	0.001	0.000	0.000
- Manufacturing	0.003	0.004	0.005	0.006	0.006	0.007
. Intermediate goods	0.001	0.002	0.003	0.004	0.005	0.005
. Investment goods	0.002	0.003	0.004	0.005	0.005	0.006
. Consumer goods	0.006	0.006	0.007	0.008	0.010	0.011
- Construction	0.003	0.002	0.002	0.003	0.003	0.003
- Transport and communication	0.005	0.005	0.006	0.007	0.008	0.008
- Commerce and horeca	0.004	0.006	0.006	0.007	0.007	0.007
- Financial services	0.010	0.012	0.013	0.013	0.012	0.012
- Health care	0.007	0.009	0.010	0.011	0.012	0.012
- Miscellaneous services	0.005	0.005	0.006	0.007	0.008	0.008
Total market sector	0.004	0.005	0.006	0.006	0.007	0.007
EMPLOYMENT						
- Agriculture	0.001	0.001	0.001	0.002	0.002	0.002
- Energy	0.001	0.001	0.001	0.001	0.001	0.001
- Manufacturing	0.002	0.003	0.005	0.006	0.009	0.011
. Intermediate goods	0.000	0.001	0.002	0.003	0.004	0.005
. Investment goods	0.001	0.002	0.003	0.005	0.006	0.008
. Consumer goods	0.004	0.005	0.008	0.010	0.014	0.017
- Construction	0.027	0.029	0.033	0.037	0.041	0.041
- Transport and communications	0.010	0.011	0.013	0.015	0.017	0.017
- Commerce and horeca	0.009	0.015	0.020	0.024	0.028	0.031
- Financial services	0.005	0.008	0.011	0.013	0.015	0.016
- Health care	0.012	0.019	0.024	0.030	0.035	0.038
- Miscellaneous services	0.019	0.022	0.028	0.032	0.035	0.035
Total market sector	0.011	0.015	0.019	0.022	0.026	0.027

[1] c:/usr/simulaties/update-sim/norm-basis.var

[2] c:/usr/simulaties/update-sim/norm-SP.var

(/) Growth Rates

X Appendum 4: Transitional and medium-term simulation results in an economy with free wage setting

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
3. Manufacturing	-1.289	-1.218	-1.157	-1.098	-1.040	-0.987
3.1. Intermediate goods	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
3.2. Investment goods	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
3.3. Consumer goods	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
4. Construction	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
5. Tradeable services	-1.289	-1.217	-1.156	-1.097	-1.039	-0.987
5.1. Transport and communication	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
5.2. Commerce and horeca	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
5.3. Financial services	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
5.4. Health care	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
5.5. Miscellaneous services	-1.289	-1.218	-1.157	-1.098	-1.041	-0.988
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	0.000	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	0.000	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

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	-0.000	-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

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

(-) Differences

Government finances

(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-82.203	-79.100	-78.986	-79.434	-80.774	-76.994
- p.m.: surplus as % of GDP	-0.031	-0.028	-0.027	-0.026	-0.025	-0.023
2. Receipts	-105.640	-118.221	-124.548	-126.155	-124.031	-106.907
- of which direct taxes on non-corporate income	-2.950	-5.016	-5.873	-5.157	-2.451	9.129
- of which direct taxes on corporate income	21.222	19.082	17.844	16.252	14.272	8.218
- of which indirect taxes	3.777	0.287	-1.929	-3.141	-3.837	-3.388
- of which social-security contributions	-127.197	-131.442	-133.145	-132.526	-130.428	-119.575
3. Expenditure excl. interest payments	-24.229	-43.081	-54.020	-59.381	-60.538	-52.253
- of which government operating costs	-5.245	-9.383	-11.537	-12.522	-12.601	-10.818
- of which pension entitlements	-4.911	-8.266	-10.013	-10.836	-10.945	-9.551
- of which health care	-0.006	-2.989	-4.898	-5.954	-6.396	-5.977
- of which unemployment entitlements	-11.383	-15.259	-18.525	-20.408	-21.294	-19.144
- of which current transfers to firms	-0.179	-0.751	-1.003	-1.110	-1.093	-0.816
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.082	-0.119	-0.120	-0.121	-0.118	-0.096
4. Interest payments	0.794	3.964	8.465	12.667	17.289	22.346

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.019	0.022	0.024	0.024	0.023	0.020
Private consumption	0.035	0.036	0.036	0.034	0.032	0.029
Gross capital formation	0.003	-0.004	-0.002	-0.001	-0.004	-0.006
Domestic absorption	0.025	0.023	0.023	0.022	0.020	0.018
Exports of goods and services	0.004	0.008	0.010	0.012	0.012	0.011
Imports of goods and services	0.009	0.009	0.009	0.009	0.009	0.009
p.m. Real disposable household income	0.023	0.025	0.027	0.028	0.030	0.034
PRICES (percentage difference)						
Private consumer price index	-0.021	-0.034	-0.040	-0.043	-0.042	-0.035
BBP deflator	-0.026	-0.039	-0.045	-0.046	-0.045	-0.036
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.249	132.249	132.249	132.249	132.249	132.249
Change in government surplus (millions of euro)	-82.203	-79.100	-78.986	-79.434	-80.774	-76.994
Change in government surplus (% of GDP)	-0.031	-0.028	-0.027	-0.026	-0.025	-0.023
Self-finance rate (% of ex ante cost)	37.842	40.189	40.274	39.936	38.923	41.781
Net budgetary cost per additional job (1000 euro)	53.132	39.211	32.734	30.358	30.151	32.330
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.547	2.017	2.413	2.617	2.679	2.382
Wage-earning employment (*)	1.178	1.595	1.894	2.063	2.123	1.907
Low wage-earning employment (*)	1.273	2.271	3.171	3.979	4.683	4.438
High wage-earning employment (*)	-0.133	-0.726	-1.334	-1.976	-2.619	-2.582
Special employment (*)	0.038	0.050	0.057	0.060	0.059	0.052
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.039	0.050	0.059	0.064	0.065	0.057
Wage-earning employment (*)	0.048	0.064	0.075	0.081	0.082	0.073
Low wage-earning employment (*)	0.191	0.330	0.453	0.559	0.648	0.607
High wage-earning employment (*)	-0.008	-0.041	-0.075	-0.110	-0.145	-0.142
Special employment (*)	0.074	0.094	0.106	0.109	0.105	0.091
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.059	0.058	0.054	0.047	0.040	0.023
Real wage cost per employee (market sector) (percentage change)	-0.126	-0.134	-0.138	-0.134	-0.126	-0.094
Nominal labour cost per unit output (market sector) (percentage difference)	-0.124	-0.134	-0.134	-0.127	-0.115	-0.081

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

Employment and output by branch
(Differences in % of baseline)

	02[2/1]	03[2/1]	04[2/1]	05[2/1]	06[2/1]	07[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.038	0.043	0.046	0.048	0.048	0.045
- Energy	0.008	0.004	0.001	-0.000	-0.002	-0.003
- Manufacturing	0.015	0.017	0.020	0.021	0.020	0.017
. Intermediate goods	0.004	0.009	0.011	0.012	0.012	0.010
. Investment goods	0.010	0.006	0.005	0.002	-0.002	-0.007
. Consumer goods	0.033	0.036	0.042	0.046	0.048	0.046
- Construction	0.009	0.004	0.006	0.006	0.004	0.000
- Transport and communication	0.029	0.030	0.035	0.037	0.037	0.034
- Commerce and horeca	0.020	0.027	0.028	0.028	0.026	0.022
- Financial services	0.044	0.056	0.057	0.054	0.050	0.043
- Health care	0.037	0.040	0.041	0.041	0.039	0.035
- Miscellaneous services	0.021	0.024	0.027	0.027	0.026	0.023
Total market sector	0.021	0.024	0.026	0.026	0.025	0.022
EMPLOYMENT						
- Agriculture	0.039	0.059	0.069	0.075	0.077	0.078
- Energy	0.004	0.005	0.006	0.008	0.009	0.011
- Manufacturing	0.011	0.015	0.020	0.024	0.027	0.025
. Intermediate goods	0.001	0.003	0.005	0.008	0.010	0.012
. Investment goods	0.004	0.003	0.001	-0.005	-0.016	-0.032
. Consumer goods	0.022	0.031	0.043	0.055	0.065	0.070
- Construction	0.015	0.003	-0.006	-0.018	-0.032	-0.047
- Transport and communications	0.081	0.089	0.095	0.096	0.093	0.080
- Commerce and horeca	0.044	0.073	0.094	0.108	0.118	0.117
- Financial services	0.017	0.025	0.031	0.034	0.035	0.031
- Health care	0.063	0.083	0.095	0.102	0.105	0.099
- Miscellaneous services	0.089	0.104	0.122	0.126	0.123	0.099
Total market sector	0.049	0.063	0.075	0.080	0.081	0.072

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LL.var

(/) Growth Rates

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-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	-0.000	-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
HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
3. Manufacturing	-0.191	-0.182	-0.174	-0.166	-0.158	-0.150
3.1. Intermediate goods	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
3.2. Investment goods	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
3.3. Consumer goods	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
4. Construction	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
5. Tradeable services	-0.191	-0.182	-0.174	-0.166	-0.158	-0.150
5.1. Transport and communication	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
5.2. Commerce and horeca	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
5.3. Financial services	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
5.4. Health care	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
5.5. Miscellaneous services	-0.190	-0.182	-0.174	-0.166	-0.157	-0.150
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	-0.000	-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

[1] c:/usr/simulaties/update-sim/vrij-basis.var
[2] c:/usr/simulaties/update-sim/vrij-HL.var
(-) Differences

Government finances
(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-79.845	-73.623	-72.202	-72.376	-74.019	-78.116
- p.m.: surplus as % of GDP	-0.030	-0.026	-0.025	-0.024	-0.023	-0.024
2. Receipts	-94.634	-91.750	-87.293	-81.648	-75.622	-72.158
- of which direct taxes on non-corporate income	5.235	9.589	13.180	16.547	19.750	21.703
- of which direct taxes on corporate income	16.531	13.429	11.428	9.588	7.866	6.955
- of which indirect taxes	2.986	2.206	2.024	2.325	2.869	3.081
- of which social-security contributions	-119.053	-116.435	-113.378	-109.638	-105.768	-103.664
3. Expenditure excl. interest payments	-15.841	-22.601	-23.964	-22.268	-18.932	-16.007
- of which government operating costs	-3.405	-4.975	-5.237	-4.886	-4.139	-3.443
- of which pension entitlements	-3.191	-4.465	-4.681	-4.416	-3.831	-3.293
- of which health care	0.002	-1.629	-2.187	-2.196	-1.888	-1.467
- of which unemployment entitlements	-7.789	-8.879	-9.562	-9.438	-9.003	-8.606
- of which current transfers to firms	-0.118	-0.331	-0.347	-0.287	-0.174	-0.058
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.055	-0.071	-0.071	-0.073	-0.071	-0.059
4. Interest payments	1.053	4.476	8.875	12.998	17.330	21.966

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-HL.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.016	0.019	0.019	0.019	0.018	0.016
Private consumption	0.029	0.031	0.031	0.031	0.030	0.029
Gross capital formation	0.009	0.010	0.015	0.017	0.017	0.016
Domestic absorption	0.022	0.022	0.023	0.023	0.023	0.022
Exports of goods and services	0.002	0.007	0.008	0.008	0.008	0.007
Imports of goods and services	0.008	0.010	0.011	0.012	0.012	0.012
p.m. Real disposable household income	0.023	0.027	0.029	0.031	0.032	0.031
PRICES (percentage difference)						
Private consumer price index	-0.014	-0.019	-0.019	-0.017	-0.015	-0.012
BBP deflator	-0.021	-0.026	-0.026	-0.024	-0.021	-0.018
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.249	132.249	132.249	132.249	132.249	132.249
Change in government surplus (millions of euro)	-79.845	-73.623	-72.202	-72.376	-74.019	-78.116
Change in government surplus (% of GDP)	-0.030	-0.026	-0.025	-0.024	-0.023	-0.024
Self-finance rate (% of ex ante cost)	39.625	44.330	45.404	45.273	44.031	40.932
Net budgetary cost per additional job (1000 euro)	75.020	61.897	56.927	58.401	63.226	70.755
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.064	1.189	1.268	1.239	1.171	1.104
Wage-earning employment (*)	0.876	1.032	1.103	1.100	1.062	1.017
Low wage-earning employment (*)	0.137	0.072	-0.022	-0.136	-0.255	-0.254
High wage-earning employment (*)	0.717	0.941	1.113	1.231	1.321	1.276
Special employment (*)	0.022	0.019	0.013	0.005	-0.004	-0.005
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.027	0.030	0.031	0.030	0.028	0.027
Wage-earning employment (*)	0.036	0.041	0.044	0.043	0.041	0.039
Low wage-earning employment (*)	0.021	0.011	-0.003	-0.019	-0.035	-0.035
High wage-earning employment (*)	0.042	0.054	0.063	0.069	0.073	0.070
Special employment (*)	0.042	0.035	0.024	0.008	-0.008	-0.008
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.043	0.035	0.028	0.021	0.015	0.012
Real wage cost per employee (market sector) (percentage change)	-0.096	-0.084	-0.074	-0.063	-0.053	-0.047
Nominal labour cost per unit output (market sector) (percentage difference)	-0.101	-0.093	-0.082	-0.070	-0.058	-0.050

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-HL.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.021	0.019	0.018	0.017	0.016	0.015
- Energy	0.009	0.010	0.010	0.011	0.011	0.010
- Manufacturing	0.015	0.018	0.019	0.018	0.017	0.015
. Intermediate goods	0.006	0.014	0.016	0.016	0.015	0.014
. Investment goods	0.015	0.017	0.017	0.015	0.012	0.009
. Consumer goods	0.026	0.025	0.025	0.024	0.023	0.021
- Construction	0.012	0.012	0.016	0.017	0.016	0.014
- Transport and communication	0.023	0.024	0.026	0.025	0.025	0.023
- Commerce and horeca	0.015	0.020	0.020	0.019	0.017	0.015
- Financial services	0.035	0.043	0.043	0.040	0.038	0.034
- Health care	0.028	0.029	0.028	0.027	0.027	0.026
- Miscellaneous services	0.018	0.020	0.021	0.020	0.019	0.017
Total market sector	0.018	0.020	0.021	0.020	0.019	0.017
EMPLOYMENT						
- Agriculture	0.009	0.012	0.014	0.015	0.016	0.016
- Energy	0.006	0.011	0.017	0.023	0.031	0.037
- Manufacturing	0.010	0.015	0.020	0.024	0.029	0.031
. Intermediate goods	0.003	0.007	0.011	0.017	0.023	0.028
. Investment goods	0.007	0.013	0.018	0.021	0.022	0.021
. Consumer goods	0.017	0.022	0.028	0.032	0.037	0.039
- Construction	0.049	0.045	0.046	0.042	0.037	0.033
- Transport and communications	0.055	0.056	0.057	0.055	0.053	0.052
- Commerce and horeca	0.021	0.029	0.032	0.030	0.027	0.023
- Financial services	0.043	0.051	0.054	0.055	0.053	0.052
- Health care	0.046	0.055	0.058	0.058	0.057	0.056
- Miscellaneous services	0.049	0.044	0.043	0.035	0.027	0.022
Total market sector	0.034	0.037	0.039	0.038	0.036	0.033

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-HL.var

(/) Growth Rates

C. The low-wage cum high-wage measure (scenario 'LLHL')

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3. Manufacturing	-0.167	-0.159	-0.152	-0.144	-0.137	-0.131
3.1. Intermediate goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3.2. Investment goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3.3. Consumer goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
4. Construction	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5. Tradeable services	-0.166	-0.159	-0.152	-0.145	-0.138	-0.131
5.1. Transport and communication	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.2. Commerce and horeca	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.3. Financial services	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.4. Health care	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.5. Miscellaneous services	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
HIGH-WAGE EMPLOYMENT						
1. Agriculture	not available	not available	not available	not available	not available	not available
2. Energy	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3. Manufacturing	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3.1. Intermediate goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3.2. Investment goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
3.3. Consumer goods	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
4. Construction	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5. Tradeable services	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.1. Transport and communication	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.2. Commerce and horeca	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.3. Financial services	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.4. Health care	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
5.5. Miscellaneous services	-0.167	-0.159	-0.152	-0.145	-0.137	-0.131
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	-0.000	-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

[1] c:/usr/simulaties/update-sim/vrij-basis.var
[2] c:/usr/simulaties/update-sim/vrij-LLHL.var
(-) Differences

Government finances
(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-80.155	-74.411	-73.258	-73.598	-75.290	-78.480
- p.m.: surplus as % of GDP	-0.030	-0.027	-0.025	-0.024	-0.024	-0.024
2. Receipts	-95.921	-94.929	-91.780	-87.051	-81.606	-76.529
- of which direct taxes on non-corporate income	4.230	7.737	10.743	13.730	16.786	19.874
- of which direct taxes on corporate income	17.174	14.257	12.404	10.636	8.918	7.391
- of which indirect taxes	3.072	1.971	1.556	1.689	2.082	2.328
- of which social-security contributions	-120.047	-118.292	-115.840	-112.513	-108.916	-105.774
3. Expenditure excl. interest payments	-16.792	-24.944	-27.371	-26.453	-23.708	-20.154
- of which government operating costs	-3.598	-5.454	-5.912	-5.695	-5.058	-4.236
- of which pension entitlements	-3.370	-4.881	-5.254	-5.095	-4.605	-3.970
- of which health care	0.001	-1.778	-2.480	-2.599	-2.378	-1.956
- of which unemployment entitlements	-8.233	-9.662	-10.664	-10.790	-10.533	-9.928
- of which current transfers to firms	-0.124	-0.377	-0.417	-0.375	-0.272	-0.136
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	-0.057	-0.076	-0.076	-0.076	-0.074	-0.061
4. Interest payments	1.028	4.429	8.851	13.003	17.394	22.106

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LLHL.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.016	0.019	0.020	0.019	0.018	0.016
Private consumption	0.030	0.031	0.031	0.031	0.030	0.028
Gross capital formation	0.008	0.008	0.013	0.015	0.014	0.013
Domestic absorption	0.022	0.022	0.023	0.023	0.022	0.021
Exports of goods and services	0.003	0.007	0.008	0.008	0.008	0.007
Imports of goods and services	0.008	0.010	0.011	0.012	0.012	0.011
p.m. Real disposable household income	0.023	0.027	0.029	0.030	0.031	0.031
PRICES (percentage difference)						
Private consumer price index	-0.015	-0.020	-0.021	-0.020	-0.018	-0.015
BBP deflator	-0.022	-0.027	-0.028	-0.026	-0.023	-0.020
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	132.249	132.249	132.249	132.249	132.249	132.249
Change in government surplus (millions of euro)	-80.155	-74.411	-73.258	-73.598	-75.290	-78.480
Change in government surplus (% of GDP)	-0.030	-0.027	-0.025	-0.024	-0.024	-0.024
Self-finance rate (% of ex ante cost)	39.391	43.734	44.606	44.349	43.070	40.657
Net budgetary cost per additional job (1000 euro)	71.250	57.559	51.901	52.116	55.307	61.939
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	1.125	1.293	1.411	1.412	1.361	1.267
Wage-earning employment (*)	0.916	1.106	1.206	1.225	1.200	1.135
Low wage-earning employment (*)	0.284	0.356	0.390	0.397	0.386	0.358
High wage-earning employment (*)	0.609	0.728	0.797	0.817	0.811	0.775
Special employment (*)	0.024	0.023	0.019	0.012	0.004	0.003
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.028	0.032	0.035	0.034	0.033	0.031
Wage-earning employment (*)	0.038	0.044	0.048	0.048	0.046	0.044
Low wage-earning employment (*)	0.043	0.052	0.056	0.056	0.053	0.049
High wage-earning employment (*)	0.035	0.042	0.045	0.046	0.045	0.043
Special employment (*)	0.046	0.043	0.034	0.022	0.007	0.005
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.045	0.038	0.031	0.024	0.018	0.013
Real wage cost per employee (market sector) (percentage change)	-0.100	-0.091	-0.082	-0.073	-0.063	-0.054
Nominal labour cost per unit output (market sector) (percentage difference)	-0.104	-0.098	-0.088	-0.077	-0.065	-0.054

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-LLHL.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.022	0.019	0.018	0.017	0.016	0.015
- Energy	0.009	0.009	0.009	0.009	0.009	0.009
- Manufacturing	0.015	0.018	0.019	0.018	0.017	0.015
. Intermediate goods	0.006	0.013	0.015	0.016	0.015	0.014
. Investment goods	0.014	0.015	0.015	0.013	0.010	0.007
. Consumer goods	0.027	0.026	0.026	0.026	0.025	0.023
- Construction	0.011	0.011	0.015	0.015	0.014	0.012
- Transport and communication	0.024	0.025	0.027	0.027	0.026	0.024
- Commerce and horeca	0.016	0.021	0.021	0.020	0.018	0.016
- Financial services	0.036	0.044	0.044	0.042	0.039	0.035
- Health care	0.030	0.031	0.030	0.029	0.028	0.027
- Miscellaneous services	0.018	0.020	0.022	0.021	0.020	0.018
Total market sector	0.018	0.020	0.021	0.021	0.019	0.018
EMPLOYMENT						
- Agriculture	0.008	0.012	0.013	0.014	0.015	0.015
- Energy	0.006	0.010	0.015	0.021	0.028	0.034
- Manufacturing	0.010	0.015	0.020	0.024	0.028	0.030
. Intermediate goods	0.002	0.006	0.010	0.015	0.021	0.026
. Investment goods	0.007	0.012	0.016	0.018	0.017	0.014
. Consumer goods	0.018	0.023	0.029	0.034	0.040	0.043
- Construction	0.045	0.040	0.039	0.034	0.028	0.023
- Transport and communications	0.059	0.060	0.062	0.060	0.058	0.056
- Commerce and horeca	0.024	0.035	0.040	0.040	0.039	0.035
- Financial services	0.040	0.048	0.051	0.052	0.051	0.049
- Health care	0.048	0.059	0.063	0.064	0.064	0.062
- Miscellaneous services	0.054	0.052	0.053	0.047	0.040	0.032
Total market sector	0.036	0.040	0.044	0.043	0.041	0.038

[1] c:/usr/simulaties/update-sim/vrij-basis.var
[2] c:/usr/simulaties/update-sim/vrij-LLHL.var
(/) Growth Rates

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

Change in the employer social-security contribution rates

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
LOW-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	0.000	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
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	0.000	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
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	-2.500	-2.500	-2.501	-2.501	-2.501	-2.501
5.1. Transport and communication	-2.500	-2.500	-2.500	-2.500	-2.500	-2.500
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/simulaties/update-sim/vrij-basis.var
[2] c:/usr/simulaties/update-sim/vrij-SP.var
(-) Differences

Government finances
(absolute differences with baseline - millions of euro)

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
1. Surplus	-16.770	-17.928	-19.798	-21.950	-24.443	-25.314
- p.m.: surplus as % of GDP	-0.006	-0.006	-0.007	-0.007	-0.008	-0.008
2. Receipts	-21.131	-24.867	-27.607	-29.849	-31.693	-30.350
- of which direct taxes on non-corporate income	0.031	-0.076	0.015	0.327	0.998	3.006
- of which direct taxes on corporate income	3.875	3.823	3.840	3.819	3.754	3.073
- of which indirect taxes	0.846	0.266	-0.102	-0.281	-0.348	-0.089
- of which social-security contributions	-25.788	-28.670	-31.088	-33.403	-35.769	-36.050
3. Expenditure excl. interest payments	-4.544	-7.828	-9.751	-10.955	-11.611	-10.903
- of which government operating costs	-0.947	-1.676	-2.069	-2.304	-2.407	-2.229
- of which pension entitlements	-0.887	-1.479	-1.796	-1.991	-2.076	-1.945
- of which health care	-0.001	-0.544	-0.901	-1.128	-1.273	-1.286
- of which unemployment entitlements	-2.321	-3.099	-3.863	-4.434	-4.891	-4.861
- of which current transfers to firms	0.022	0.092	0.341	0.583	0.796	0.867
- p.m. wage subsidies through activation of unemployment entitlements and the Social Maribel programme	0.039	0.202	0.495	0.765	0.988	1.030
4. Interest payments	0.183	0.890	1.944	3.057	4.362	5.868

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-SP.var

	2002[2-1]	2003[2-1]	2004[2-1]	2005[2-1]	2006[2-1]	2007[2-1]
AGGREGATE DEMAND (in real terms - percentage difference)						
GDP	0.004	0.004	0.005	0.005	0.005	0.005
Private consumption	0.007	0.008	0.008	0.008	0.008	0.008
Gross capital formation	0.001	-0.000	0.000	0.001	0.001	0.001
Domestic absorption	0.005	0.005	0.005	0.005	0.006	0.006
Exports of goods and services	0.000	0.001	0.002	0.002	0.002	0.002
Imports of goods and services	0.002	0.002	0.002	0.002	0.002	0.002
p.m. Real disposable household income	0.005	0.005	0.006	0.007	0.008	0.009
PRICES (percentage difference)						
Private consumer price index	-0.004	-0.006	-0.007	-0.008	-0.008	-0.007
BBP deflator	-0.005	-0.007	-0.009	-0.010	-0.010	-0.009
GOVERNMENT FINANCES						
Ex ante budgetary cost (millions of euro)	26.953	28.679	30.343	32.189	34.237	36.231
Change in government surplus (millions of euro)	-16.770	-17.928	-19.798	-21.950	-24.443	-25.314
Change in government surplus (% of GDP)	-0.006	-0.006	-0.007	-0.007	-0.008	-0.008
Self-finance rate (% of ex ante cost)	37.781	37.488	34.750	31.810	28.606	30.133
Net budgetary cost per additional job (1000 euro)	52.523	43.113	38.701	37.994	39.112	41.466
LABOUR MARKET (absolute difference - in 1000)						
Employment (incl. self-employed and non-market)	0.319	0.416	0.512	0.578	0.625	0.610
Wage-earning employment (*)	0.254	0.348	0.426	0.486	0.531	0.525
Low wage-earning employment (*)	0.100	0.155	0.201	0.241	0.275	0.273
High wage-earning employment (*)	-0.006	-0.127	-0.257	-0.402	-0.557	-0.576
Special employment (*)	0.160	0.319	0.481	0.646	0.813	0.828
LABOUR MARKET (percentage difference)						
Employment (incl. self-employed and non-market)	0.008	0.010	0.013	0.014	0.015	0.015
Wage-earning employment (*)	0.010	0.014	0.017	0.019	0.021	0.020
Low wage-earning employment (*)	0.015	0.023	0.029	0.034	0.038	0.037
High wage-earning employment (*)	-0.000	-0.007	-0.015	-0.022	-0.031	-0.032
Special employment (*)	0.312	0.604	0.889	1.166	1.434	1.438
COMPETITIVENESS						
Gross operating surplus rate (% of value added) (absolute change)	0.011	0.011	0.011	0.011	0.010	0.008
Real wage cost per employee (market sector) (percentage change)	-0.025	-0.028	-0.030	-0.032	-0.032	-0.029
Nominal labour cost per unit output (market sector) (percentage difference)	-0.024	-0.027	-0.028	-0.029	-0.028	-0.024

(*) market sector without agriculture

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-SP.var

Employment and output by branch
(Differences in % of baseline)

	2002[2/1]	2003[2/1]	2004[2/1]	2005[2/1]	2006[2/1]	2007[2/1]
ADDED VALUE (constant prices)						
- Agriculture	0.004	0.004	0.003	0.003	0.004	0.003
- Energy	0.002	0.002	0.001	0.001	0.001	0.001
- Manufacturing	0.003	0.003	0.003	0.003	0.003	0.003
. Intermediate goods	0.001	0.002	0.003	0.003	0.003	0.003
. Investment goods	0.002	0.001	0.001	0.001	-0.000	-0.001
. Consumer goods	0.005	0.005	0.005	0.006	0.006	0.006
- Construction	0.003	0.002	0.003	0.003	0.004	0.004
- Transport and communication	0.005	0.005	0.005	0.006	0.006	0.006
- Commerce and horeca	0.004	0.006	0.006	0.006	0.006	0.006
- Financial services	0.009	0.012	0.012	0.012	0.012	0.012
- Health care	0.007	0.008	0.009	0.010	0.011	0.011
- Miscellaneous services	0.004	0.005	0.006	0.006	0.006	0.006
Total market sector	0.004	0.004	0.005	0.005	0.005	0.005
EMPLOYMENT						
- Agriculture	0.001	0.001	0.001	0.001	0.001	0.002
- Energy	0.001	0.001	0.002	0.002	0.002	0.003
- Manufacturing	0.002	0.002	0.003	0.004	0.004	0.004
. Intermediate goods	0.000	0.001	0.001	0.002	0.003	0.004
. Investment goods	0.001	0.001	0.000	-0.001	-0.003	-0.006
. Consumer goods	0.004	0.004	0.006	0.007	0.009	0.010
- Construction	0.025	0.029	0.033	0.036	0.039	0.037
- Transport and communications	0.009	0.009	0.010	0.010	0.010	0.009
- Commerce and horeca	0.008	0.014	0.017	0.020	0.023	0.023
- Financial services	0.005	0.007	0.009	0.011	0.012	0.012
- Health care	0.011	0.016	0.021	0.024	0.027	0.028
- Miscellaneous services	0.017	0.019	0.022	0.023	0.024	0.021
Total market sector	0.010	0.013	0.016	0.018	0.019	0.018

[1] c:/usr/simulaties/update-sim/vrij-basis.var

[2] c:/usr/simulaties/update-sim/vrij-SP.var

(/) Growth Rates