

ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE  
**CERN** EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

*Action to be taken*

*Voting Procedure*

<b>Action to be taken</b>	<b>Voting Procedure</b>
For recommendation to Council	<b>FINANCE COMMITTEE</b> 325 <sup>th</sup> Meeting <b>17 June 2009</b>
For Approval	<b>COUNCIL</b> 151 <sup>st</sup> Session <b>18 June 2009</b>

**Future arrangements for the calculation of the scale of Member State contributions**

The Finance Committee is invited to recommend, and the Council is invited to approve one of the following options for the scale of contributions for 2010:

Option (A): Application of the present calculation arrangements (Variant A) using final NNI data for 2005, 2006 and 2007, the weighting factors -7/6, 2/6 and 11/6 and an exchange rate average over the last four months before the decision (January to April 2009).

Option (B): A new calculation arrangement according to simulation<sup>1</sup> 11 using final NNI data for 2005, 2006 and 2007, an arithmetic average and yearly exchange rates for 2005, 2006 and 2007.

The contribution basis in Swiss Francs will depend on the Council decisions on the 2010 Budget and on the applicable Cost-Variation-Index.

The call-up of contributions will be made on 18 December 2009 at latest, to enable all Member States to effect payment of contributions to the Organization in January 2010.

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<sup>1</sup> Simulation studies sent to Delegations on 17 April 2009



## Future arrangements for the calculation of the scale of Member State contributions

The White Paper “Future arrangements for the calculation of the scale of Member State Contributions” was presented to the Finance Committee session of 18/03/2009.

The “Finance Committee decided to invite the Management, as a starting point for further work, to prepare simulations based on the application of various possible calculation scenarios with the overall aim of identifying an arrangement that would minimise volatility of Member State contributions.”<sup>2</sup>

Based on feedback received from the Delegations with respect to the additional simulations, the following two options are proposed for the scale of contributions for 2010:

Option (A): Application of the present calculation arrangement (Variant A) using final NNI data for 2005, 2006 and 2007, with application of weighting factors of -7/6, 2/6 and 11/6 and the exchange rate average over the last four months before the decision (January to April 2009).

Option (B): A new calculation arrangement according to simulation<sup>3</sup> 11 using final NNI data for 2005, 2006 and 2007, with application of a simple arithmetic average and yearly exchange rates for 2005, 2006 and 2007.

In both cases the calculations of the scale of contributions for the year 2010 are based on the Net National Income at factor cost (NNI)<sup>4</sup> for each Member State in national currency for the years 2005 – 2007<sup>5</sup>;

For Option (A) the exchange rates for the months of January, February, March and April 2009 were used; for Option (B) annual average exchange rates for 2005, 2006 and 2007<sup>6</sup> were applied.

For Bulgaria NNI values for 2005-2007 are estimated using 73.5% of its GDP<sup>7</sup> being the average ratio between GDP and NNI values for all other Member States publishing NNIs.

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<sup>2</sup> CERN/FC/5334

<sup>3</sup> Simulation studies sent to Delegations on 17 April 2009

<sup>4</sup> Net National Income (NNI) is the aggregate value of the balances of net primary income summed over all sectors. Gross National Income (GNI) less consumption of fixed capital from GNI gives net national income (NNI) at market prices, less indirect taxes plus operating subsidies gives the Net National Income at factor cost.

<sup>5</sup> Obtained from the OECD (Organization for Economic Co-operation and Development, Paris) on 13/05/2009.

<sup>6</sup> Obtained from the Swiss National Bank on 13/05/2009.

<sup>7</sup> In accordance with document CERN/2629 based on the data obtained from the Bulgarian National Bank.

**Option (A)**

This option is based on the present calculation arrangements applied to the available data such as to allow for a decision by Council in June instead of December. Therefore, this document applies the same NNI reference period (2005 to 2007) as for the 2009 Scale of Contributions. However, the latest available NNI values were revised since November 2008 by OECD based on information provided to them, the various countries changing up to 4.7%<sup>8</sup>. Similarly, the average exchange rates of the four months rolling period before decision (July–October 2008 versus January–April 2009) are significantly different up to 29%. The variations of both, revised NNIs in national currency, as well as the exchange rate fluctuation are presented in Table A-1. The combined impact of the updated and weighted NNI expressed in Swiss Francs is presented in Table A-2. Please note that the updated data set of the weighted NNIs in Swiss Francs reduces the total for all Member States by 7.74% with respect to the 2009 Scale of Contributions.

The scale of contributions for Option (A) for 2010 is shown in Table 1 in percentage by Member State.

**Option (B)**

This option is the simulation 11 distributed to the Delegations on 17 April 2009.

Each year's NNI value is first expressed in Swiss Francs using the annual average exchange rate. Then, the arithmetic average of the three NNI values is computed. Therefore, Option (B) differs by two elements with respect to Option (A)

- Yearly expression of NNI values in Swiss Francs instead of using the exchange rate average of the last four months prior to decision
- Arithmetic average instead of weighting by -7/6, 2/6 and 11/6.

Table A-3 shows the variations between the 2009 Scale of Contributions and both Options as well as the differences between the outcome of Option (A) and Option (B).

The scale of contributions for Option (B) for 2010 is shown in Table 2 in percentage by Member State.

## **Recommendation**

The Finance Committee is invited to recommend, and the Council is invited to approve one of the following options:

### **Option (A)**

The Finance Committee is invited to recommend, and the Council is invited to approve the attached scale of contributions for 2010 as shown in Table 1, calculated using the present calculation arrangements (Variant A) using final NNI data for 2005, 2006 and 2007, the weighting factors -7/6, 2/6 and 11/6 and an exchange rate average over the last four months before the decision (January to April 2009).

### **Option (B)**

The Finance Committee is invited to recommend, and the Council is invited to approve the attached scale of contributions for 2010 as shown in Table 2, calculated using the arrangements described above using final NNI data for 2005, 2006 and 2007 with arithmetic average and yearly exchange rates for 2005, 2006 and 2007.

**Scale of Contributions of the Member States in percentages for 2010 – Option (A)****Table 1**

	<b>Weighted Average Net National Income at factor cost Average 2005 to 2007 (in million national currency)</b>	<b>Average exchange rate for the period January to April 2009 (100 units of national currencies in Swiss francs)</b>	<b>Weighted Average Net National Income at factor cost Average 2005 to 2007 (in MCHF)</b>	<b>Contributions in % for 2010 (in %)</b>
Austria	212,443	150.1600	319,004	2.2092%
Belgium	277,145	150.1600	416,161	2.8821%
Bulgaria	42,450	76.7800	32,593	0.2257%
Czech Republic	2,743,865	5.4739	150,196	1.0402%
Denmark	1,256,409	20.1505	253,173	1.7533%
Finland	148,297	150.1600	222,683	1.5422%
France	1,513,265	150.1600	2,272,319	15.7366%
Germany	1,958,630	150.1600	2,941,079	20.3679%
Greece	188,833	150.1600	283,552	1.9637%
Hungary	18,258,911	0.5101	93,139	0.6450%
Italy	1,145,827	150.1600	1,720,574	11.9155%
Netherlands	493,166	150.1600	740,538	5.1285%
Norway	2,024,644	16.8528	341,209	2.3630%
Poland	948,885	33.5434	318,288	2.2042%
Portugal	112,849	150.1600	169,454	1.1735%
Slovak Republic	53,545	150.1600	80,403	0.5568%
Spain	839,833	150.1600	1,261,093	8.7335%
Sweden	2,604,566	13.7513	358,162	2.4804%
Switzerland	470,915	100.0000	470,915	3.2612%
United Kingdom	1,203,459	165.7900	1,995,215	13.8175%
		TOTAL	14,439,750	100.0000%

## Scale of Contributions of the Member States in percentages for 2010 – Option (B)

**Table 2**

	Net National Income at factor cost			Annual average exchange rate			Net National Income at factor cost				Contributions in % for 2010 (in %)
	2005	2006	2007	2005	2006	2007	2005	2006	2007	Arithmetic Average	
	(in million national currency)			(100 units of national currencies in CHF)			(in MCHF)				
Austria	177,216	186,044	194,826	154.8100	157.3000	164.2600	274,349	292,647	320,021	295,672	2.1085%
Belgium	222,827	236,303	250,005	154.8100	157.3000	164.2600	344,958	371,704	410,657	375,773	2.6797%
Bulgaria	26,035	29,827	34,299	79.1531	80.4262	83.9848	20,607	23,989	28,806	24,467	0.1745%
Czech Republic	2,008,508	2,174,509	2,379,430	5.1943	5.5487	5.9176	104,328	120,657	140,805	121,930	0.8695%
Denmark	1,082,893	1,148,608	1,165,590	20.7715	21.0849	22.0417	224,933	242,183	256,916	241,344	1.7211%
Finland	114,596	123,291	131,397	154.8100	157.3000	164.2600	177,406	193,937	215,833	195,725	1.3958%
France	1,270,501	1,330,482	1,392,012	154.8100	157.3000	164.2600	1,966,863	2,092,848	2,286,519	2,115,410	15.0856%
Germany	1,696,730	1,765,560	1,827,070	154.8100	157.3000	164.2600	2,626,708	2,777,226	3,001,145	2,801,693	19.9796%
Greece	150,422	160,428	169,554	154.8100	157.3000	164.2600	232,868	252,353	278,509	254,577	1.8155%
Hungary	14,530,620	15,694,894	16,352,547	0.6237	0.5958	0.6533	90,627	93,510	106,831	96,989	0.6917%
Italy	1,013,785	1,043,744	1,080,360	154.8100	157.3000	164.2600	1,569,440	1,641,810	1,774,600	1,661,950	11.8518%
Netherlands	382,501	416,434	436,694	154.8100	157.3000	164.2600	592,150	655,051	717,314	654,838	4.6698%
Norway	1,513,166	1,671,565	1,763,354	19.3208	19.5480	20.4958	292,356	326,758	361,414	326,843	2.3308%
Poland	709,488	753,814	832,009	38.4777	40.3775	43.4339	272,995	304,371	361,374	312,913	2.2315%
Portugal	101,425	102,446	107,470	154.8100	157.3000	164.2600	157,016	161,148	176,531	164,898	1.1759%
Slovak Republic	32,882	38,224	43,182	154.8100	157.3000	164.2600	50,904	60,126	70,930	60,653	0.4325%
Spain	655,435	701,140	747,706	154.8100	157.3000	164.2600	1,014,679	1,102,893	1,228,182	1,115,251	7.9532%
Sweden	1,984,747	2,153,362	2,292,173	16.6797	16.9968	17.7486	331,050	366,003	406,829	367,961	2.6240%
Switzerland	408,842	428,927	439,048	100.0000	100.0000	100.0000	408,842	428,927	439,048	425,606	3.0351%
United Kingdom	984,537	1,024,947	1,096,602	226.3100	230.6500	240.0700	2,228,106	2,364,040	2,632,612	2,408,253	17.1739%
TOTAL											14,022,746
											100.0000%

**Annex**

**Comparison of OECD data and exchange rates available  
for the document of December 2008 and for the current document of June 2009**

**Table A-1**

		Data available for the document of December 2008 CERN/FC/5291/Rev.				Data available for the document of June 2009 CERN/FC/5349				Variations June 2009 with respect to December 2008			
in million national currency		NNI at factor cost 2005	NNI at factor cost 2006	NNI at factor cost 2007	Exchange rate average Jul- Oct 2008	NNI at factor cost 2005	NNI at factor cost 2006	NNI at factor cost 2007	Exchange rate average Jan - Apr 2009	Variation of NNI at factor cost 2005	Variation of NNI at factor cost 2006	Variation of NNI at factor cost 2007	Variation of exchange rate
Austria	EUR	180,477	190,493	200,748	158.8425	177,216	186,044	194,826	150.1600	-1.8069%	-2.3355%	-2.9500%	-5.4661%
Belgium	EUR	222,937	236,476	247,680	158.8425	222,827	236,303	250,005	150.1600	-0.0493%	-0.0732%	0.9387%	-5.4661%
Bulgaria	BGN	25,871	29,639	34,083	81.1909	26,035	29,827	34,299	76.7800	0.6339%	0.6343%	0.6337%	-5.4327%
Czech Republic	CZK	2,008,508	2,175,509	2,388,416	6.5427	2,008,508	2,174,509	2,379,430	5.4739	0.0000%	-0.0460%	-0.3762%	-16.3354%
Denmark	DKK	1,082,246	1,156,479	1,185,344	21.2949	1,082,893	1,148,608	1,165,590	20.1505	0.0598%	-0.6806%	-1.6665%	-5.3738%
Finland	EUR	114,768	123,273	133,670	158.8425	114,596	123,291	131,397	150.1600	-0.1499%	0.0146%	-1.7005%	-5.4661%
France	EUR	1,270,501	1,330,199	1,391,304	158.8425	1,270,501	1,330,482	1,392,012	150.1600	0.0000%	0.0213%	0.0509%	-5.4661%
Germany	EUR	1,696,730	1,765,560	1,827,070	158.8425	1,696,730	1,765,560	1,827,070	150.1600	0.0000%	0.0000%	0.0000%	-5.4661%
Greece	EUR	150,453	161,697	171,484	158.8425	150,422	160,428	169,554	150.1600	-0.0206%	-0.7848%	-1.1255%	-5.4661%
Hungary	HUF	14,389,338	15,508,610	16,453,642	0.6579	14,530,620	15,694,894	16,352,547	0.5101	0.9819%	1.2012%	-0.6144%	-22.4595%
Italy	EUR	1,012,733	1,038,999	1,074,049	158.8425	1,013,785	1,043,744	1,080,360	150.1600	0.1039%	0.4567%	0.5876%	-5.4661%
Netherlands	EUR	378,836	402,711	425,505	158.8425	382,501	416,434	436,694	150.1600	0.9674%	3.4077%	2.6296%	-5.4661%
Norway	NOK	1,513,166	1,662,009	1,746,806	19.8867	1,513,166	1,671,565	1,763,354	16.8528	0.0000%	0.5750%	0.9473%	-15.2558%
Poland	PLN	709,524	754,397	830,772	47.1695	709,488	753,814	832,009	33.5434	-0.0051%	-0.0773%	0.1489%	-28.8874%
Portugal	EUR	101,425	102,446	106,936	158.8425	101,425	102,446	107,470	150.1600	0.0000%	0.0000%	0.4994%	-5.4661%
Slovak Republic	EUR	32,547	36,507	43,210	157.5740	32,882	38,224	43,182	150.1600	1.0293%	4.7032%	-0.0648%	-4.7051%
Spain	EUR	655,435	701,140	747,706	158.8425	655,435	701,140	747,706	150.1600	0.0000%	0.0000%	0.0000%	-5.4661%
Sweden	SEK	1,982,067	2,157,844	2,288,317	16.6155	1,984,747	2,153,362	2,292,173	13.7513	0.1352%	-0.2077%	0.1685%	-17.2380%
Switzerland	CHF	408,842	428,927	439,048	100.0000	408,842	428,927	439,048	100.0000	0.0000%	0.0000%	0.0000%	0.0000%
United Kingdom	GBP	969,284	1,004,670	1,060,745	200.2075	984,537	1,024,947	1,096,602	165.7900	1.5736%	2.0183%	3.3804%	-17.1909%

## Outcome of Option (A) compared to the current scale (CERN/FC/5291/Rev.)

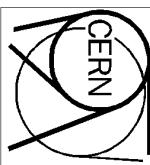
Table A-2

	Weighted Average Net National Income at factor cost CERN/FC/5291/Rev. December 2008 (in MCHF)	Weighted Average Net National Income at factor cost CERN/FC/5349 June 2009 (in MCHF)	Variation of Weighted NNI	Contributions in % for 2009 CERN/FC/5291/Rev. December 2008 (in %)	Contributions in % for 2010 CERN/FC/5349 June 2009 (in %)	Relative variations of contributions
Austria	351,009	319,004	-9.12%	2.2427%	2.2092%	-1.50%
Belgium	433,340	416,161	-3.96%	2.7688%	2.8821%	4.09%
Bulgaria	34,249	32,593	-4.83%	0.2188%	0.2257%	3.14%
Czech Republic	180,622	150,196	-16.85%	1.1541%	1.0402%	-9.87%
Denmark	275,982	253,173	-8.26%	1.7634%	1.7533%	-0.57%
Finland	241,848	222,683	-7.92%	1.5453%	1.5422%	-0.20%
France	2,401,496	2,272,319	-5.38%	15.3442%	15.7366%	2.56%
Germany	3,111,137	2,941,079	-5.47%	19.8783%	20.3679%	2.46%
Greece	306,181	283,552	-7.39%	1.9563%	1.9637%	0.38%
Hungary	122,011	93,139	-23.66%	0.7796%	0.6450%	-17.26%
Italy	1,801,117	1,720,574	-4.47%	11.5081%	11.9155%	3.54%
Netherlands	750,299	740,538	-1.30%	4.7940%	5.1285%	6.98%
Norway	395,968	341,209	-13.83%	2.5300%	2.3630%	-6.60%
Poland	446,586	318,288	-28.73%	2.8534%	2.2042%	-22.75%
Portugal	177,694	169,454	-4.64%	1.1354%	1.1735%	3.36%
Slovak Republic	84,170	80,403	-4.48%	0.5378%	0.5568%	3.53%
Spain	1,334,013	1,261,093	-5.47%	8.5236%	8.7335%	2.46%
Sweden	432,354	358,162	-17.16%	2.7625%	2.4804%	-10.21%
Switzerland	470,915	470,915	0.00%	3.0089%	3.2612%	8.39%
United Kingdom	2,299,899	1,995,215	-13.25%	14.6950%	13.8175%	-5.97%
Total	15,650,890	14,439,750	-7.74%			

**The current scale (CERN/FC/5291/Rev.) compared to Option (A) and Option (B)**

**Table A-3**

	CERN/FC/5291/Rev. for 2009 (in %)	Option (A) for 2010 (in %)	Option (B) for 2010 (in %)	Option (A) for 2010 compared to CERN/FC/5291/Rev. for 2009 (in relative %)	Option (B) for 2010 compared to CERN/FC/5291/Rev. for 2009 (in relative %)	Option (B) for 2010 compared to Option (A) for 2010 (in relative %)
Austria	2.2427%	2.2092%	2.1085%	-1.4955%	-6.3666%	-4.5582%
Belgium	2.7688%	2.8821%	2.6797%	4.0924%	-3.3246%	-7.0227%
Bulgaria	0.2188%	0.2257%	0.1745%	3.1398%	-25.4036%	-22.6850%
Czech Republic	1.1541%	1.0402%	0.8695%	-9.8666%	-32.7277%	-16.4103%
Denmark	1.7634%	1.7533%	1.7211%	-0.5707%	-2.4556%	-1.8365%
Finland	1.5453%	1.5422%	1.3958%	-0.1986%	-10.7085%	-9.4929%
France	15.3442%	15.7366%	15.0856%	2.5577%	-1.7139%	-4.1369%
Germany	19.8783%	20.3679%	19.9796%	2.4628%	0.5068%	-1.9064%
Greece	1.9563%	1.9637%	1.8155%	0.3773%	-7.7565%	-7.5470%
Hungary	0.7796%	0.6450%	0.6917%	-17.2632%	-12.7051%	7.2403%
Italy	11.5081%	11.9155%	11.8518%	3.5403%	2.9002%	-0.5346%
Netherlands	4.7940%	5.1285%	4.6698%	6.9781%	-2.6590%	-8.9441%
Norway	2.5300%	2.3630%	2.3308%	-6.6008%	-8.5465%	-1.3627%
Poland	2.8534%	2.2042%	2.2315%	-22.7524%	-27.8702%	1.2385%
Portugal	1.1354%	1.1735%	1.1759%	3.3591%	3.4474%	0.2045%
Slovak Republic	0.5378%	0.5568%	0.4325%	3.5336%	-24.3460%	-22.3240%
Spain	8.5236%	8.7335%	7.9532%	2.4631%	-7.1714%	-8.9346%
Sweden	2.7625%	2.4804%	2.6240%	-10.2114%	-5.2778%	5.7894%
Switzerland	3.0089%	3.2612%	3.0351%	8.3863%	0.8643%	-6.9330%
United Kingdom	14.6950%	13.8175%	17.1739%	-5.9715%	14.4341%	24.2909%



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Geneva, April 17, 2009

Ref: Simulation of different methods to calculate the scale of Member States' contributions

Ladies and Gentlemen, dear Colleagues,

At its 18 March 2009 meeting, the FC took note of the information set out in the White Paper "Scale of Contributions".

The FC decided to invite the Management, as a starting point for further work, to prepare simulations based on the application of various possible calculation methodology scenarios.

Please find attached a document containing 11 simulations – all based on NNI – for different weighting factors (Variant A, Variant B and arithmetic), for different reference years, different reference periods for the exchange rates, and various combinations of those parameters. Not covered by the wording of the CERN Convention are the 6 simulations using GDP instead of NNI. In total, 17 simulation methods are provided.

The impact of the simulations is compared with the approved scales of contributions for the relevant past period (part 1 of the document, pages 1-7) as well as with the theoretical outcome based on the real NNI data for the years concerned as points of reference (part 2 of the document, pages 8-14). In addition, an interesting comparison of the approved scales of contributions with the theoretical outcome based on the real NNI for the years 2004 to 2009 is given (part 3 of the document, page 15).

With the overall aim of identifying a methodology that would minimise volatility of Member State contributions and reflect more precisely the economic reality in the Member States, I kindly ask you – in the light of the simulations provided – to give a general feedback with a view to identifying a possible way forward.

Especially, I invite you to reconsider the Management's proposal on page 9 in the White Paper (final NNI data for the years n-4, n-3 and n-2; corresponding annual average exchange rates) with three possible extrapolations using the weighting factors of Variant A (simulation 3), Variant B (simulation 7) or arithmetic (simulation 11).

Looking forward to hearing from you until the end of April, I thank you for your collaboration in this important matter.

Yours sincerely,

Martin Steinacher  
Chairman CERN FC

**Impact of the various simulations compared with the approved scales of contributions**

	Variant A using yearly exchange rates	Variant A using January-April exchange rates and 1 year earlier NNI	Variant A using yearly exchange rates and 1 year earlier NNI	Variant B using July-October exchange rates*	Variant B using yearly exchange rates*	Variant B using January-April exchange rates and 1 year earlier NNI	Variant B using yearly exchange rates and 1 year earlier NNI	Arithmetic average using July-October exchange rates	Arithmetic average using yearly exchange rates**	Arithmetic average using January-April exchange rates and 1 year earlier NNI	Arithmetic average using yearly exchange rates and 1 year earlier NNI	Variant A based on GDP and January-April exchange rates	Variant B based on GDP and January-April exchange rates	Variant A based on GDP and yearly exchange rates	Variant B based on GDP and yearly exchange rates***	Arithmetic average based on GDP and January-April exchange rates	Arithmetic average based on GDP and yearly exchange rates
Austria	-3.60%	-3.85%	-4.61%	-3.10%	-3.76%	-3.04%	-4.03%	-2.90%	-3.83%	-2.60%	-3.75%	-0.86%	-1.04%	-0.25%	-0.86%	0.09%	-0.77%
Belgium	-0.42%	-0.74%	-1.48%	0.17%	-0.47%	0.21%	-0.75%	0.39%	-0.51%	0.73%	-0.39%	0.30%	0.12%	0.43%	-0.17%	0.50%	-0.35%
Bulgaria	5.89%	-1.18%	-1.17%	-3.56%	-4.21%	-10.78%	-11.81%	-10.01%	-11.03%	-17.04%	-18.78%	7.12%	6.77%	-2.47%	-3.11%	-8.84%	-9.83%
Czech Republic	-8.83%	-8.11%	-9.44%	-6.35%	-12.30%	-11.54%	-19.74%	-8.83%	-19.01%	-13.57%	-26.34%	5.73%	7.74%	1.84%	-1.49%	-0.51%	-7.60%
Denmark	-1.76%	-1.32%	-2.04%	-2.04%	-2.63%	-2.10%	-3.01%	-2.25%	-3.11%	-2.54%	-3.60%	4.61%	4.52%	5.12%	4.60%	5.40%	4.64%
Finland	2.61%	2.45%	1.91%	2.33%	1.70%	2.04%	1.10%	2.08%	1.18%	1.79%	0.66%	3.51%	3.35%	3.73%	3.14%	3.84%	3.01%
France	-1.52%	-0.67%	-1.35%	-0.17%	-0.81%	0.56%	-0.40%	0.53%	-0.38%	1.24%	0.12%	-0.17%	-0.29%	0.43%	-0.18%	0.76%	-0.11%
Germany	-0.57%	0.68%	-0.07%	2.38%	1.75%	3.90%	2.96%	3.92%	3.03%	5.61%	4.55%	-2.17%	-2.24%	1.48%	0.88%	3.42%	2.56%
Greece	8.35%	5.35%	4.65%	4.08%	3.44%	1.22%	0.26%	1.41%	0.50%	-1.25%	-2.38%	7.08%	6.81%	2.22%	1.60%	-0.74%	-1.60%
Hungary	-11.29%	-16.80%	-16.36%	-20.10%	-20.70%	-26.48%	-26.59%	-25.58%	-26.46%	-32.63%	-32.90%	0.94%	1.65%	-6.34%	-6.05%	-10.90%	-10.79%
Italy	-0.62%	1.21%	0.64%	1.02%	0.40%	2.19%	1.26%	1.95%	1.05%	2.73%	1.63%	4.74%	4.70%	5.82%	5.26%	6.43%	5.61%
Netherlands	5.44%	5.43%	4.88%	5.38%	4.77%	5.26%	4.36%	5.26%	4.40%	5.16%	4.09%	3.15%	3.08%	3.29%	2.71%	3.37%	2.53%
Norway	1.23%	-2.31%	-0.32%	-4.97%	-4.33%	-8.92%	-7.65%	-8.14%	-7.79%	-13.08%	-12.24%	-5.05%	-3.08%	-9.29%	-7.64%	-11.86%	-10.48%
Poland	-2.72%	-3.93%	-3.63%	-2.14%	-5.93%	-6.75%	-7.97%	-3.76%	-7.97%	-8.41%	-10.58%	2.44%	1.61%	-1.31%	-2.46%	-3.57%	-5.11%
Portugal	5.11%	6.80%	6.31%	6.88%	6.30%	8.08%	7.21%	7.91%	7.06%	8.79%	7.75%	14.66%	14.61%	15.03%	14.52%	15.25%	14.51%
Slovak Republic	-3.57%	-10.67%	-17.91%	-10.21%	-18.84%	-20.33%	-32.59%	-16.72%	-30.03%	-26.56%	-42.67%	5.56%	5.12%	-2.93%	-8.27%	-8.44%	-17.96%
Spain	-0.01%	-1.86%	-2.42%	-3.62%	-4.27%	-5.92%	-6.89%	-5.86%	-6.80%	-8.34%	-9.54%	3.85%	3.61%	-1.07%	-1.66%	-4.06%	-4.91%
Sweden	0.91%	0.80%	-1.63%	0.42%	0.45%	-0.01%	-0.52%	-0.40%	0.12%	-0.48%	0.01%	3.11%	1.61%	2.73%	2.20%	2.52%	2.47%
Switzerland	-1.14%	-1.35%	1.41%	0.12%	1.42%	1.14%	3.23%	1.16%	2.89%	2.49%	4.21%	-18.61%	-17.97%	-15.42%	-14.03%	-13.72%	-11.84%
United Kingdom	1.32%	-0.04%	2.40%	-1.67%	1.55%	-2.34%	1.87%	-2.84%	1.72%	-3.68%	1.60%	-4.33%	-3.95%	-6.02%	-3.08%	-6.99%	-2.63%

Total simulated contribution is at least 2% smaller than the paid contribution for the period 2004-2009

Total simulated contribution is at least 2% larger than the paid contribution for the period 2004-2009

Variant A and Variant B refer to page 2 of the White Paper 18 March 2009 meeting of Finance Committee:

\* Figure 4,

\*\* Figure 5 and

\*\*\* Figure 6 of the White Paper show the relative changes of these methods

The following pages are showing the detailed results of the 17 methods compared to the paid contributions.













**Impact of the various simulations compared with the theoretical outcome based on the real NNI data for the years concerned**

	Variant A using yearly exchange rates	Variant A using January-April exchange rates and 1 year earlier NNI	Variant A using yearly exchange rates and 1 year earlier NNI	Variant B using July-October exchange rates	Variant B using yearly exchange rates*	Variant B using January-April exchange rates and 1 year earlier NNI	Variant B using yearly exchange rates and 1 year earlier NNI	Arithmetic average using July-October exchange rates	Arithmetic average using yearly exchange rates**	Arithmetic average using January-April exchange rates and 1 year earlier NNI	Arithmetic average using yearly exchange rates and 1 year earlier NNI	Variant A based on GDP and January-April exchange rates	Variant B based on GDP and January-April exchange rates	Variant A based on GDP and yearly exchange rates	Variant B based on GDP and yearly exchange rates***	Arithmetic average based on GDP and January-April exchange rates	Arithmetic average based on GDP and yearly exchange rates
Austria	-2.11%	-2.35%	-3.10%	-1.61%	-2.26%	-1.56%	-2.53%	-1.42%	-2.34%	-1.12%	-2.25%	0.59%	0.41%	1.20%	0.60%	1.53%	0.68%
Belgium	-0.10%	-0.42%	-1.16%	0.49%	-0.16%	0.52%	-0.43%	0.71%	-0.20%	1.04%	-0.07%	0.61%	0.44%	0.75%	0.15%	0.82%	-0.03%
Bulgaria	2.27%	-5.07%	-5.06%	-7.55%	-8.22%	-15.05%	-16.11%	-14.25%	-15.31%	-21.55%	-23.36%	3.55%	3.19%	-6.42%	-7.08%	-13.02%	-14.05%
Czech Republic	-7.84%	-7.13%	-8.44%	-5.38%	-11.28%	-10.52%	-18.65%	-7.85%	-17.93%	-12.54%	-25.19%	6.58%	8.58%	2.73%	-0.56%	0.40%	-6.62%
Denmark	-1.69%	-1.25%	-1.96%	-1.97%	-2.56%	-2.02%	-2.94%	-2.17%	-3.04%	-2.47%	-3.53%	4.67%	4.59%	5.18%	4.67%	5.46%	4.71%
Finland	2.05%	1.89%	1.34%	1.77%	1.13%	1.47%	0.53%	1.52%	0.61%	1.23%	0.09%	2.96%	2.80%	3.17%	2.58%	3.29%	2.45%
France	-1.85%	-1.00%	-1.68%	-0.50%	-1.14%	0.24%	-0.72%	0.21%	-0.71%	0.92%	-0.20%	-0.49%	-0.61%	0.10%	-0.50%	0.44%	-0.43%
Germany	-0.68%	0.57%	-0.19%	2.26%	1.64%	3.78%	2.85%	3.81%	2.92%	5.50%	4.43%	-2.29%	-2.36%	1.37%	0.76%	3.31%	2.45%
Greece	7.44%	4.41%	3.70%	3.13%	2.48%	0.24%	-0.73%	0.43%	-0.49%	-2.26%	-3.39%	6.16%	5.89%	1.25%	0.63%	-1.74%	-2.61%
Hungary	-4.17%	-9.32%	-8.91%	-12.41%	-12.97%	-18.38%	-18.49%	-17.54%	-18.37%	-24.14%	-24.39%	7.28%	7.95%	0.47%	0.74%	-3.80%	-3.70%
Italy	-0.30%	1.52%	0.95%	1.33%	0.72%	2.50%	1.57%	2.26%	1.36%	3.04%	1.94%	5.04%	5.00%	6.12%	5.56%	6.72%	5.91%
Netherlands	3.67%	3.66%	3.10%	3.61%	2.98%	3.49%	2.57%	3.49%	2.61%	3.39%	2.29%	1.33%	1.27%	1.48%	0.89%	1.57%	0.71%
Norway	0.63%	-2.93%	-0.94%	-5.62%	-4.97%	-9.59%	-8.31%	-8.80%	-8.44%	-13.77%	-12.92%	-5.69%	-3.71%	-9.96%	-8.30%	-12.54%	-11.16%
Poland	-3.44%	-4.66%	-4.36%	-2.85%	-6.67%	-7.49%	-8.73%	-4.49%	-8.73%	-9.17%	-11.36%	1.76%	0.92%	-2.02%	-3.18%	-4.29%	-5.85%
Portugal	3.82%	5.54%	5.03%	5.62%	5.03%	6.83%	5.95%	6.66%	5.80%	7.55%	6.50%	13.50%	13.46%	13.88%	13.36%	14.10%	13.35%
Slovak Republic	-7.08%	-14.43%	-21.92%	-13.95%	-22.88%	-24.41%	-37.09%	-20.69%	-34.45%	-30.86%	-47.52%	2.36%	1.89%	-6.43%	-11.95%	-12.13%	-21.97%
Spain	0.61%	-1.22%	-1.78%	-2.97%	-3.62%	-5.25%	-6.22%	-5.20%	-6.13%	-7.67%	-8.85%	4.45%	4.22%	-0.44%	-1.03%	-3.41%	-4.26%
Sweden	0.03%	-0.08%	-2.53%	-0.47%	-0.44%	-0.91%	-1.41%	-1.29%	-0.77%	-1.37%	-0.88%	2.25%	0.73%	1.86%	1.33%	1.65%	1.60%
Switzerland	-0.57%	-0.78%	1.97%	0.68%	1.98%	1.70%	3.77%	1.72%	3.44%	3.04%	4.75%	-17.94%	-17.30%	-14.77%	-13.39%	-13.08%	-11.21%
United Kingdom	1.71%	0.36%	2.79%	-1.27%	1.94%	-1.94%	2.26%	-2.43%	2.12%	-3.27%	1.99%	-3.91%	-3.54%	-5.60%	-2.67%	-6.57%	-2.22%

Total simulated contribution is at least 2% smaller than the theoretical outcome based on the real NNI data for the period 2004-2009

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\* Figure 4,

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The following pages are showing the detailed results of the 17 methods compared to the theoretical outcome based on the real NNI data













