Wage Rigidity and Monetary Union Tables

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Symmetry: High wage rigidity ($\vartheta = 1$)

Table 1: Volatility, all shocks, symmetry, $\vartheta = 1$

	Flexible	Mixed		EMU
	DE-FR-UK	DE-FR	UK	DE-FR-UK
Q	2.15	2.10	2.15	2.08
x	2.47	2.45	2.47	2.44
h	1.70	1.21	1.70	1.00
π	1.26	0.88	1.26	0.70
c	2.24	1.95	2.24	1.85
q	1.95	1.72	1.72	0.70
s	2.93	0.00	0.00	2.54
R	0.42	0.31	0.42	0.26

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R.

Table 2: Welfare, all shocks, symmetry, $\vartheta = 1$

	Flexible	Mixed		EMU
	DE-FR-UK	DE-FR	UK	DE-FR-UK
Supply	-20.9797	-20.9786	-20.9797	-20.9782
	-0.0332	-0.0195	-0.0332	-0.0150
Fiscal	-20.9791	-20.9792	-20.9791	-20.9792
	-0.0258	-0.0268	-0.0258	-0.0271
Money	-20.9873	-20.9809	-20.9873	-20.9787
	-0.1243	-0.0472	-0.1243	-0.0215
All	-20.9922	-20.9847	-20.9922	-20.9822
	-0.1833	-0.0935	-0.1833	-0.0636

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations (multiplied by 1000).

Symmetry: Low wage rigidity ($\vartheta = 0.5$)

Table 3: Volatility, all shocks, symmetry, $\vartheta = 0.5$

	Flexible	Mixed		EMU
	DE-FR-UK	DE-FR	UK	DE-FR-UK
Q	2.51	2.20	2.51	2.08
x	2.43	2.44	2.43	2.44
h	0.79	0.77	0.79	0.77
π	3.28	1.96	3.28	1.24
c	3.76	2.62	3.76	2.11
q	5.29	4.60	4.60	0.67
s	6.32	0.00	0.00	5.47
R	0.42	0.31	0.42	0.26

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R.

Table 4: Welfare, all shocks, symmetry, $\vartheta = 0.5$

	Flexible	Mixed		EMU
	DE-FR-UK	DE-FR	UK	DE-FR-UK
Supply	-20.9781	-20.9780	-20.9781	-20.9779
	-0.0140	-0.0123	-0.0140	-0.0117
Fiscal	-20.9790	-20.9790	-20.9790	-20.9790
	-0.0251	-0.0254	-0.0251	-0.0255
Money	-20.9770	-20.9769	-20.9770	-20.9769
	-0.0006	-0.0002	-0.0006	-0.0001
All	-20.9802	-20.9801	-20.9802	-20.9800
	-0.0398	-0.0379	-0.0398	-0.0373

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations (multiplied by 1000).

Wage Asymmetry

Table 5: Volatility, all shocks, wage asymmetry

	Flexible		Mixed		EMU	
	DE-FR	UK	DE-FR	UK	DE-FR	UK
Q	2.16	2.49	2.10	2.49	2.09	2.10
x	2.48	2.44	2.46	2.44	2.45	2.48
h	1.74	0.80	1.28	0.80	1.11	0.85
π	1.28	3.24	0.90	3.24	0.78	1.05
c	2.25	3.73	1.96	3.73	1.87	2.01
q	1.95	3.80	0.70	3.69	0.70	0.77
s	2.93	4.78	0.00	4.55	0.00	0.00
R	0.42	0.42	0.31	0.42	0.26	0.26

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R.

Table 6: Welfare, wage asymmetry

	Flexible		Mixed		EMU	
	DE-FR	UK	DE-FR	UK	DE-FR	UK
Supply	-20.9799	-20.9782	-20.9787	-20.9782	-20.9784	-20.9783
	-0.0352	-0.0147	-0.0215	-0.0147	-0.0177	-0.0163
Fiscal	-20.9791	-20.9791	-20.9792	-20.9792	-20.9792	-20.9790
	-0.0258	-0.0252	-0.0267	-0.0252	-0.0272	-0.0253
Money	-20.9879	-20.9770	-20.9815	-20.9770	-20.9797	-20.9773
	-0.1322	-0.0009	-0.0551	-0.0009	-0.0334	-0.0047
All	-20.9930	-20.9803	-20.9855	-20.9803	-20.9834	-20.9808
	-0.1931	-0.0408	-0.1033	-0.0408	-0.0782	-0.0463

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations (multiplied by 1000.)

Table 7: Elasticities in France-Germany: Flexible Rates

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_m^F	ε_m^G	ε_m^B
Q	0.716	-0.002	-0.026	0.142	-0.015	-0.015	-1.685	-0.458	-0.597
x	0.535	0.068	0.137	0.076	0.017	0.017	-3.711	0.422	0.830
c	1.261	-0.042	-0.079	-0.026	-0.017	-0.016	2.961	-0.709	-0.928
h	-0.716	0.104	0.211	0.117	0.026	0.026	-5.709	0.649	1.276
π	-1.261	0.042	0.079	0.026	0.017	0.016	-2.961	0.709	0.928
qFG	-0.052	0.052	0.000	-0.075	0.075	0.000	-4.814	4.814	0.000
qFB	-0.052	0.000	0.052	-0.075	0.000	0.075	-4.814	0.000	4.814
qGB	0.000	-0.052	0.052	0.000	-0.075	0.075	0.000	-4.814	4.814
sFG	-1.339	1.339	0.000	-0.044	0.044	0.000	-7.039	7.039	0.000
sFB	-1.560	-0.221	2.588	-0.051	-0.007	0.032	-8.437	-1.398	14.275
sGB	-0.221	-1.560	2.588	-0.007	-0.051	0.032	-1.398	-8.437	14.275
R	-0.191	-0.004	-0.004	-0.001	0.000	0.000	0.036	0.001	0.001

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 8: Elasticities in the UK: Flexible

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_m^F	ε_m^G	ε_m^B
Q	-0.142	-0.142	1.483	-0.020	-0.020	0.135	-1.343	-1.343	2.758
x	-0.030	-0.030	1.158	0.014	0.014	0.071	-0.198	-0.198	-0.096
c	-0.263	-0.263	2.472	-0.024	-0.024	-0.037	-2.107	-2.107	9.977
h	-0.047	-0.047	0.242	0.021	0.021	0.109	-0.305	-0.305	-0.147
π	0.263	0.263	-2.472	0.024	0.024	0.037	2.107	2.107	-9.977
R	-0.004	-0.004	-0.191	0.000	0.000	-0.001	0.001	0.001	0.036

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 9: Elasticities in France-Germany: Mixed

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_r^E	ε_r^B
Q	0.820	-0.106	-0.026	0.145	-0.019	-0.015	-2.143	-0.597
x	0.921	-0.319	0.137	0.089	0.004	0.017	-3.289	0.830
c	0.914	0.305	-0.079	-0.037	-0.005	-0.016	2.252	-0.928
h	-0.121	-0.491	0.211	0.136	0.006	0.026	-5.060	1.276
π	-0.914	-0.305	0.079	0.037	0.005	0.016	-2.252	0.928
qFG	0.871	-0.871	0.000	-0.045	0.045	0.000	0.000	0.000
qFB	0.409	-0.461	0.052	-0.060	-0.015	0.075	-4.814	4.814
qGB	-0.461	0.409	0.052	-0.015	-0.060	0.075	-4.814	4.814
sGB	-0.891	-0.891	2.588	-0.029	-0.029	0.032	-9.835	14.275
R	-0.097	-0.097	-0.004	-0.000	-0.000	0.000	0.037	0.001

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 10: Elasticities in the UK: Mixed

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_r^E	ε_r^B
Q	-0.142	-0.142	1.483	-0.020	-0.020	0.135	-2.687	2.758
x	-0.030	-0.030	1.158	0.014	0.014	0.071	-0.396	-0.096
c	-0.263	-0.263	2.472	-0.024	-0.024	-0.037	-4.213	9.977
h	-0.047	-0.047	0.242	0.021	0.021	0.109	-0.609	-0.147
π	0.263	0.263	-2.472	0.024	0.024	0.037	4.213	-9.977
R	-0.004	-0.004	-0.191	0.000	0.000	-0.001	0.002	0.036

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 11: Elasticities in France-Germany: EMU

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_r^U
Q	0.830	-0.096	-0.093	0.147	-0.018	-0.017	-2.997
x	1.018	-0.222	-0.215	0.093	0.009	0.012	-3.327
c	0.835	0.226	0.219	-0.041	-0.010	-0.012	2.095
h	0.028	-0.341	-0.331	0.144	0.014	0.018	-5.119
π	-0.835	-0.226	-0.219	0.041	0.010	0.012	-2.095
qFG	0.871	-0.871	0.000	-0.045	0.045	0.000	0.000
qFB	0.676	-0.195	-1.033	-0.043	0.002	0.059	-3.037
qGB	-0.195	0.676	-1.033	0.002	-0.043	0.059	-3.037
R	-0.066	-0.066	-0.066	-0.000	-0.000	-0.000	0.038

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 12: Elasticities in the UK: EMU

	ε_a^F	ε_a^G	ε_a^B	ε_g^F	ε_g^G	ε_g^B	ε_r^U
Q	0.134	0.134	1.025	-0.020	-0.020	0.132	0.584
x	0.071	0.071	1.270	0.006	0.006	0.076	1.245
c	0.362	0.362	0.942	-0.011	-0.011	-0.053	4.221
h	0.110	0.110	0.415	0.010	0.010	0.117	1.915
π	-0.362	-0.362	-0.942	0.011	0.011	0.053	-4.221
R	-0.066	-0.066	-0.066	-0.000	-0.000	-0.000	0.038

Note: See table 5 for variable definitions. The top row lists the shocks.

Table 13: Variance decomposition: Flexible

Q^F, Q^G									
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^F	ε_r^G	ε_r^B
1	16.62	0.26	1.09	2.08	0.10	0.10	75.01	0.96	3.78
4	67.96	0.10	0.40	1.93	0.06	0.06	27.71	0.35	1.43
8	77.43	0.07	0.27	2.03	0.06	0.06	18.88	0.24	0.96
20	81.96	0.05	0.21	2.28	0.05	0.05	14.46	0.18	0.76
40	82.60	0.06	0.21	2.38	0.05	0.05	13.77	0.17	0.71
Q^S									
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^F	ε_r^G	ε_r^B
1	0.06	0.06	96.85	0.08	0.08	2.24	0.26	0.26	0.11
4	0.02	0.02	97.54	0.05	0.05	1.97	0.08	0.08	0.19
8	0.01	0.01	97.49	0.05	0.05	2.06	0.05	0.05	0.23
20	0.01	0.01	97.22	0.05	0.05	2.31	0.04	0.04	0.27
40	0.02	0.02	97.08	0.05	0.05	2.41	0.04	0.04	0.29
π^F, π^G									
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^F	ε_r^G	ε_r^B
1	62.22	0.06	0.24	0.16	0.06	0.06	32.16	1.84	3.20
4	52.48	0.04	0.15	0.11	0.04	0.04	43.96	1.15	2.03
8	53.05	0.04	0.15	0.12	0.04	0.04	43.42	1.14	2.00
20	53.64	0.05	0.15	0.12	0.04	0.04	42.86	1.13	1.97
40	53.80	0.05	0.16	0.12	0.04	0.04	42.71	1.12	1.96
π^S									
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^F	ε_r^G	ε_r^B
1	0.41	0.41	37.19	0.02	0.02	0.05	2.53	2.53	56.84
4	0.38	0.38	37.08	0.01	0.01	0.05	2.32	2.32	57.45
8	0.38	0.38	37.26	0.01	0.01	0.05	2.31	2.31	57.29
20	0.38	0.38	37.44	0.01	0.01	0.05	2.30	2.30	57.13
40	0.38	0.38	37.49	0.01	0.01	0.05	2.30	2.30	57.08

Table 14: Variance decomposition: Mixed

Q^F, Q^G								
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^E	ε_r^B
1	53.33	6.39	1.17	3.07	0.00	0.10	31.85	4.09
4	82.24	2.25	0.41	2.30	0.03	0.06	11.25	1.46
8	87.24	1.51	0.28	2.29	0.03	0.06	7.60	0.99
20	89.52	1.15	0.21	2.48	0.03	0.05	5.79	0.77
40	89.80	1.09	0.21	2.58	0.03	0.05	5.51	0.73
Q^S								
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^E	ε_r^B
1	0.06	0.06	96.85	0.08	0.08	2.24	0.53	0.10
4	0.02	0.02	97.54	0.05	0.05	1.97	0.16	0.19
8	0.01	0.01	97.49	0.05	0.05	2.06	0.11	0.22
20	0.01	0.01	97.22	0.05	0.05	2.31	0.08	0.27
40	0.02	0.02	97.08	0.05	0.05	2.41	0.08	0.29
π^F, π^G								
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^E	ε_r^B
1	66.12	7.35	0.49	0.67	0.01	0.13	18.80	6.43
4	46.51	13.26	0.31	0.43	0.03	0.08	35.37	4.01
8	46.25	14.05	0.31	0.43	0.03	0.08	34.89	3.96
20	45.98	14.90	0.31	0.43	0.03	0.08	34.37	3.90
40	45.91	15.14	0.32	0.43	0.03	0.08	34.22	3.87
π^S								
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^E	ε_r^B
1	0.41	0.41	37.19	0.02	0.02	0.05	5.06	56.84
4	0.38	0.38	37.08	0.01	0.01	0.05	4.64	57.45
8	0.38	0.38	37.26	0.01	0.01	0.05	4.62	57.29
20	0.38	0.38	37.44	0.01	0.01	0.05	4.61	57.12
40	0.38	0.38	37.49	0.01	0.01	0.05	4.61	57.07

Table 15: Variance decomposition: EMU

Q^F,Q^G							
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^U
1	67.58	3.20	3.00	3.55	0.03	0.05	22.59
4	87.46	1.10	1.04	2.47	0.04	0.04	7.85
8	90.77	0.74	0.69	2.41	0.04	0.04	5.31
20	92.20	0.56	0.53	2.58	0.04	0.04	4.05
40	92.34	0.54	0.50	2.67	0.04	0.04	3.87
Q^S							
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^U
1	0.29	0.29	94.43	0.01	0.01	2.10	2.87
4	0.11	0.11	96.69	0.03	0.03	1.95	1.08
8	0.08	0.08	96.98	0.03	0.03	2.05	0.75
20	0.07	0.07	96.93	0.03	0.03	2.28	0.59
40	0.07	0.07	96.84	0.03	0.03	2.38	0.58
π^F,π^F							
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^U
1	73.74	5.39	5.06	1.13	0.06	0.09	14.53
4	44.84	9.37	8.91	0.66	0.04	0.05	36.13
8	44.40	9.80	9.35	0.66	0.04	0.05	35.70
20	43.92	10.28	9.83	0.66	0.04	0.05	35.22
40	43.78	10.43	9.98	0.66	0.04	0.05	35.06
π^S							
k	ε_a^F	ε_a^G	ε_a^S	ε_g^F	ε_g^G	ε_g^S	ε_r^U
1	7.60	7.60	51.40	0.04	0.04	1.02	32.30
4	8.93	8.93	46.76	0.05	0.05	0.92	34.36
8	9.31	9.31	46.36	0.05	0.05	0.92	34.00
20	9.73	9.73	45.93	0.05	0.05	0.91	33.60
40	9.86	9.86	45.80	0.05	0.05	0.91	33.47

Asymmetry in wage, cross correlation in supply shocks

Table 16: Macroeconomic volatility: All shocks

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Q	1.77	1.77	2.16	1.79	1.79	2.16	1.79	1.79	1.81
x	1.83	1.83	1.77	1.81	1.81	1.77	1.80	1.80	1.84
h	1.69	1.69	0.74	1.25	1.25	0.74	1.09	1.09	0.83
π	1.26	1.26	3.20	0.89	0.89	3.20	0.77	0.77	1.05
c	1.91	1.91	3.50	1.68	1.68	3.50	1.61	1.61	1.78
q	1.91	3.74	3.74	0.68	3.63	3.63	0.68	0.76	0.76
s	2.84	4.68	4.68	0.00	0.00	4.46	0.00	0.00	0.00
R	0.28	0.28	0.28	0.27	0.27	0.28	0.26	0.26	0.26

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to France–Germany, the second to Germany–UK and the third one to France-UK

Table 17: Welfare comparisons

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Supply	-20.9790	-20.9790	-20.9776	-20.9783	-20.9783	-20.9776	-20.9782	-20.9782	-20.9781
	-0.0244	-0.0244	-0.0084	-0.0167	-0.0167	-0.0084	-0.0152	-0.0152	-0.0136
Fiscal	-20.9791	-20.9791	-20.9790	-20.9792	-20.9792	-20.9790	-20.9792	-20.9792	-20.9790
	-0.0258	-0.0258	-0.0252	-0.0267	-0.0267	-0.0252	-0.0272	-0.0272	-0.0253
Money	-20.9879	-20.9879	-20.9770	-20.9815	-20.9815	-20.9770	-20.9797	-20.9797	-20.9773
	-0.1322	-0.1322	-0.0009	-0.0551	-0.0551	-0.0009	-0.0334	-0.0334	-0.0047
All	-20.9921	-20.9921	-20.9798	-20.9851	-20.9851	-20.9798	-20.9832	-20.9832	-20.9806
	-0.1823	-0.1823	-0.0344	-0.0985	-0.0985	-0.0344	-0.0758	-0.0758	-0.0436

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations.

rho=-1/4, wage asymmetry

Table 18: Macroeconomic volatility: All shocks

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Q	2.22	2.22	2.45	2.17	2.17	2.45	2.15	2.15	2.18
x	2.30	2.30	2.31	2.28	2.28	2.31	2.28	2.28	2.31
h	1.48	1.48	0.79	1.16	1.16	0.79	1.07	1.07	0.81
π	1.18	1.18	2.92	0.88	0.88	2.92	0.79	0.79	1.09
c	2.30	2.30	3.52	2.06	2.06	3.52	1.99	1.99	2.14
q	1.77	3.39	3.39	0.78	3.30	3.30	0.78	0.86	0.86
s	2.69	4.31	4.31	0.00	0.00	4.09	0.00	0.00	0.00
R	0.42	0.42	0.42	0.31	0.31	0.42	0.26	0.26	0.26

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to France–Germany, the second to Germany–UK and the third one to France-UK

Table 19: Welfare comparisons

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Supply	-20.9790	-20.9790	-20.9775	-20.9781	-20.9781	-20.9775	-20.9778	-20.9778	-20.9777
	-0.0252	-0.0252	-0.0075	-0.0140	-0.0140	-0.0075	-0.0109	-0.0109	-0.0097
Fiscal	-20.9795	-20.9795	-20.9794	-20.9795	-20.9795	-20.9794	-20.9796	-20.9796	-20.9794
	-0.0303	-0.0303	-0.0297	-0.0312	-0.0312	-0.0297	-0.0316	-0.0316	-0.0297
Money	-20.9838	-20.9838	-20.9772	-20.9803	-20.9803	-20.9772	-20.9794	-20.9794	-20.9771
	-0.0830	-0.0830	-0.0030	-0.0399	-0.0399	-0.0030	-0.0301	-0.0301	-0.0025
All	-20.9885	-20.9885	-20.9803	-20.9840	-20.9840	-20.9803	-20.9830	-20.9830	-20.9804
	-0.1385	-0.1385	-0.0401	-0.0852	-0.0852	-0.0401	-0.0726	-0.0726	-0.0419

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations.

The UK has more aggressive reaction to inflation, $K_\pi = 2$

Table 20: Macroeconomic volatility: All shocks

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Q	2.16	2.16	2.33	2.10	2.10	2.33	2.09	2.09	2.10
x	2.47	2.47	2.44	2.45	2.45	2.44	2.45	2.45	2.47
h	1.73	1.73	0.78	1.25	1.25	0.78	1.04	1.04	0.83
π	1.27	1.27	2.42	0.89	0.89	2.42	0.74	0.74	0.96
c	2.24	2.24	3.01	1.96	1.96	3.01	1.86	1.86	1.96
q	1.95	3.01	3.01	0.70	2.87	2.87	0.70	0.75	0.75
s	2.93	3.82	3.82	0.00	0.00	3.53	0.00	0.00	0.00
R	0.42	0.42	0.29	0.31	0.31	0.29	0.23	0.23	0.23

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to France–Germany, the second to Germany–UK and the third one to France-UK

Table 21: Welfare comparisons

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Supply	-20.9798	-20.9798	-20.9780	-20.9786	-20.9786	-20.9780	-20.9781	-20.9781	-20.9781
	-0.0340	-0.0340	-0.0125	-0.0203	-0.0203	-0.0125	-0.0142	-0.0142	-0.0145
Fiscal	-20.9791	-20.9791	-20.9790	-20.9792	-20.9792	-20.9790	-20.9792	-20.9792	-20.9790
	-0.0258	-0.0258	-0.0250	-0.0267	-0.0267	-0.0250	-0.0273	-0.0273	-0.0253
Money	-20.9877	-20.9877	-20.9770	-20.9813	-20.9813	-20.9770	-20.9792	-20.9792	-20.9773
	-0.1295	-0.1295	-0.0008	-0.0525	-0.0525	-0.0008	-0.0275	-0.0275	-0.0039
All	-20.9927	-20.9927	-20.9801	-20.9852	-20.9852	-20.9801	-20.9827	-20.9827	-20.9806
	-0.1893	-0.1893	-0.0383	-0.0995	-0.0995	-0.0383	-0.0689	-0.0689	-0.0437

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations.

Wage asymmetry and the UK has more volatile supply shocks, $\sigma_a =$ 0.012

Table 22: Macroeconomic volatility: All shocks

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Q	2.17	2.17	3.49	2.12	2.12	3.49	2.11	2.11	2.99
x	2.48	2.48	3.62	2.46	2.46	3.62	2.46	2.46	3.69
h	1.75	1.75	0.96	1.29	1.29	0.96	1.15	1.15	1.01
π	1.28	1.28	3.92	0.90	0.90	3.92	0.80	0.80	1.35
c	2.27	2.27	4.75	1.99	1.99	4.75	1.92	1.92	2.80
q	1.95	4.44	4.44	0.70	4.34	4.34	0.70	1.00	1.00
s	2.93	5.33	5.33	0.00	0.00	5.12	0.00	0.00	0.00
R	0.42	0.42	0.63	0.31	0.31	0.63	0.31	0.31	0.31

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to France–Germany, the second to Germany–UK and the third one to France-UK

Table 23: Welfare comparisons

	Flexible			Mixed			EMU		
	FR	GER	UK	FR	GER	UK	FR	GER	UK
Supply	-20.9801	-20.9801	-20.9796	-20.9789	-20.9789	-20.9796	-20.9789	-20.9789	-20.9799
	-0.0377	-0.0377	-0.0325	-0.0240	-0.0240	-0.0325	-0.0234	-0.0234	-0.0351
Fiscal	-20.9791	-20.9791	-20.9790	-20.9792	-20.9792	-20.9790	-20.9792	-20.9792	-20.9790
	-0.0258	-0.0258	-0.0252	-0.0267	-0.0267	-0.0252	-0.0272	-0.0272	-0.0253
Money	-20.9879	-20.9879	-20.9770	-20.9815	-20.9815	-20.9770	-20.9797	-20.9797	-20.9773
	-0.1322	-0.1322	-0.0009	-0.0551	-0.0551	-0.0009	-0.0334	-0.0334	-0.0047
All	-20.9932	-20.9932	-20.9818	-20.9857	-20.9857	-20.9818	-20.9839	-20.9839	-20.9824
	-0.1956	-0.1956	-0.0585	-0.1058	-0.1058	-0.0585	-0.0840	-0.0840	-0.0651

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations.

Table 24: Choosing the right partner: Welfare comparisons

	Flexible		Mixed			EMU	
	DE-FR	UK	DE	UK	FR	DE-FR	UK
Supply	-0.0362	-0.0147	-0.0351	-0.0245	-0.0368	-0.0182	-0.0164
Fiscal	-0.0256	-0.0250	-0.0267	-0.0252	-0.0256	-0.0271	-0.0252
Money	-0.1379	-0.0010	-0.1120	-0.0212	-0.1387	-0.0353	-0.0044
All	-0.1997	-0.0407	-0.1738	-0.0709	-0.2012	-0.0806	-0.0460

Note: The entries give the corresponding steady state consumption equivalent of the cost of fluctuations (multiplied by 1000). In the limited currency union, a rigid, $\vartheta = 1$ country (DE) forms a currency with a flexible $\vartheta = 0.5$ country (the UK); the other rigid (FR) remains outside.

Table 25: Macroeconomic volatility: DE–FR–UK, all shocks

	Flexible			Mixed			EMU		
	FR	DE	UK	FR	DE	UK	FR	DE	UK
Q	1.53	1.47	2.09	1.56	1.36	2.10	1.47	1.32	2.02
x	1.45	1.53	2.11	1.38	1.39	2.11	1.29	1.34	2.14
h	2.30	1.36	0.83	1.77	1.25	0.84	1.60	1.08	0.90
π	0.98	0.73	1.69	0.67	0.76	1.72	0.63	0.71	1.40
c	1.33	1.46	2.46	1.19	1.35	2.48	1.25	1.31	2.01
q	1.09	1.88	1.70	0.48	1.79	1.74	0.47	1.04	0.95
s	3.03	3.33	2.47	0.00	0.00	2.49	0.00	0.00	0.00

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, and nominal exchange rate,s. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to France–Germany, the second to Germany–UK and the third one to France-UK

Table 26: Welfare comparisons, DE–FR–UK

	Flexible			Mixed			EMU		
	FR	DE	UK	FR	DE	UK	FR	DE	UK
Supply	-0.0291	-0.0109	-0.0326	-0.0144	-0.0122	-0.0336	-0.0198	-0.0189	-0.0342
Fiscal	-0.3069	-0.0171	-0.0108	-0.1223	-0.0237	-0.0107	-0.1092	-0.0206	-0.0126
Money	-0.0014	-0.0899	-0.0001	-0.0624	-0.0636	-0.0005	-0.0337	-0.0344	-0.0051
All	-0.3374	-0.1179	-0.0434	-0.1991	-0.0995	-0.0448	-0.1626	-0.0739	-0.0519

Note: The first line gives the level of welfare for each shock. The line below gives the corresponding steady state consumption equivalent of the cost of fluctuations.

Table 27: Macroeconomic volatility, FR-GER zone, UK, US, All shocks: Calibrated Taylor Rules

	Flexible			UK in EMU		
	FR-DE	UK	US	FR-DE	UK	US
Q	0.94	1.98	1.37	1.58	1.98	1.37
x	0.95	2.12	1.16	1.51	2.19	1.19
h	1.40	0.74	0.94	1.93	0.91	0.97
π	0.91	2.04	0.89	0.90	1.81	0.83
c	1.15	2.60	1.48	1.47	2.39	1.43
q	2.32	0.81	2.51	1.07	1.24	2.05
s	3.37	1.37	3.26	0.00	0.00	2.28

Note: Standard deviation of output, Q, employment, h, CPI inflation, π, consumption, c, terms of trade, q, nominal exchange rate,s, and nominal interest rate, R. In the real and nominal exchange rate rows, under each monetary regime, the first entry refers to the EMU zone–UK, the second to the UK–US and the third one to the EMU–US.

Table 28: Welfare comparisons

	Flexible			UK in EMU		
	FR-DE	UK	US	FR-DE	UK	US
Supply	-0.1210	-0.0337	-0.0126	-0.0642	-0.0466	-0.0156
Fiscal	-0.0200	-0.0079	-0.0546	-0.0241	-0.0091	-0.0533
Money	-0.0077	-0.0002	-0.0002	-0.1952	-0.0074	-0.0025
All	-0.1487	-0.0418	-0.0674	-0.2836	-0.0631	-0.0715

Note: The entries give the corresponding steady state consumption equivalent of the cost of fluctuations.

Estimated Taylor rules

The estimated parameters of the Taylor rules are given by[1].

ρ^F	K_y^F	K_Π^F	ρ^G	K_y^G	K_Π^G	ρ^S	K_y^S	K_Π^S
0.807	0.191	1.88	0.791	0.068	1.22	0.92	0.18	1.03

The shocks to the Taylor rules, ζ, evolve according to

$$z_t^i = \rho_z^i z_{t-1}^i + \varepsilon_{z_t}^i \text{ for i=F,G,S} \tag{1}$$

with

ρ_z^F	ρ_z^G	ρ_z^S
0.00524345	0.0135731	0.02193531

and volatilities given by

$\sigma(\varepsilon_z^F)$	$\sigma(\varepsilon_z^G)$	$\sigma(\varepsilon_z^S)$
0.00082	0.0011	0.0021

Table 29: Volatility, general asymmetries, all shocks: Estimated Taylor rules

	Flexible			Mixed			EMU		
	FR	DE	UK	FR	DE	UK	FR	DE	UK
Q	3.00	2.77	1.81	2.99	2.66	1.82	2.93	2.61	1.74
x	3.04	3.03	1.50	3.10	3.02	1.50	3.04	2.97	1.74
h	1.50	1.24	0.57	1.29	1.00	0.57	1.55	1.34	0.79
π	1.38	1.03	5.55	1.11	0.82	5.55	1.26	1.00	1.43
c	2.90	3.05	5.71	2.79	2.81	5.72	2.75	2.77	2.10
q	1.52	5.80	5.65	0.58	5.72	5.66	0.58	0.73	0.64
s	1.96	8.06	7.92	0.00	0.00	7.94	0.00	0.00	0.00

Note: Standard deviation of output (Q), intermediate good (x), employment (h), CPI inflation (π), consumption (c), terms of trade (q) and nominal exchange rate (s).

[1]Data availability together with the restriction that the estimation is done during a single exchange rate system led to the use of different time periods for the estimation of the Taylor rules in individual countries: 1983:1 to 1991:4 for France and Germany (as argued earlier, the exchange rate target did not serve as a restriction on French monetary policy until after German unification) and 1980.1-1999.4 for the UK.

Table 30: Welfare, general asymmetries, all shocks: Estimated Taylor rules

	Flexible			Mixed			EMU		
	FR	DE	UK	FR	DE	UK	FR	DE	UK
Supply	-0.0520	-0.0499	-0.0080	-0.0272	-0.0331	-0.0079	-0.0643	-0.0730	-0.0258
Fiscal	-0.0659	-0.0208	-0.0104	-0.0664	-0.0188	-0.0104	-0.0666	-0.0200	-0.0110
Money	-0.0239	-0.0262	-0.0019	-0.0112	-0.0112	-0.0020	-0.0207	-0.0207	-0.0029
All	-0.1418	-0.0969	-0.0203	-0.1048	-0.0631	-0.0202	-0.1516	-0.1137	-0.0397

Note: The entries give the corresponding steady state consumption equivalent of the cost of fluctuations (multiplied by 1000).