

Europe and the US: Labor Supply (ctd.)

Monetary and Fiscal Policy

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Preferences for more or less work, Bell and Freeman (2000)

Table 2

German and US preferences for more or less work (ISSP data for 1989 and 1997)

Would you prefer:	More hours/ more pay	Same hours/ same pay	Less hours/ less pay
Germany, All Workers 1997	21.0	68.7	10.3
US, All Workers 1997	32.0	57.7	10.3
Germany, All Workers 1989	13.5	76.4	10.1
US, All Workers 1989	32.7	61.8	5.5

^aResponses to the following question asked of workers in both countries: "Think of the number of hours you work and the money that you make in your main job, including regular overtime. If you had only one of three choices, which of the following would you prefer: (1) Work longer hours and earn more money; (2) Work the same number of hours and earn the same money; (3) Work fewer hours and earn less money?"

Inequality Measures, Bell and Freeman (2000)

Table 3

West German and US work hours and hourly wage variation^a (GSOEP, 1985–1995; NLSY, 1989–1996; CPS Outgoing Rotation Group Files, 1985–1995)

Year	German GSOEP data				US NLSY data			
	Variation log usual hours		Variation log hourly wage		Variation log usual hours		Variation log hourly wage	
	All	Male	All	Male	All	Male	All	Male
1985	0.422	0.321	0.627	0.590				
1986	0.397	0.290	0.638	0.619				
1987	0.398	0.305	0.638	0.623				
1988	0.406	0.320	0.643	0.624				
1989	0.375	0.253	0.599	0.578	0.350	0.293	0.640	0.616
1990	0.384	0.284	0.586	0.552	0.344	0.276	0.695	0.682
1991	0.380	0.252	0.556	0.531	0.358	0.291	0.611	0.607
1992	0.383	0.254	0.538	0.511	0.349	0.290	0.635	0.636
1993	0.404	0.237	0.537	0.503	0.350	0.269	0.638	0.625
1994	0.405	0.260	0.514	0.483	0.328	0.257	0.588	0.585
1995	0.427	0.279	0.555	0.511				
1996					0.374	0.309	0.649	0.665

^aFor German and US workers reporting greater than or equal to five usual hours work per week and less than or equal to 90 usual hours work per week.

^bVariation calculated as standard deviation in ln of usual hours.

^cVariation calculated as standard deviation in ln of hourly earnings.

Occupation-level Regressions in Bell and Freeman (2000)

Table 4

Work hours and earnings inequality regressions at the occupation level for West German and US workers^a (GSOEP Merged Files for Germany, 1985–1995; NLSY Merged Files for US, 1989–1996)

Independent variables	All German workers			Male German workers			All US workers			Male US workers		
	(1) All	(2) 20+ h	(3) 35+ h	(4) all male	(5) male 20+ h	(6) male 35+ h	(7) all	(8) 20+ h	(9) 35+ h	(10) all male	(11) male 20+ h	(12) male 35+ h
Std. ln Hourly Earnings	0.032 (0.034)	0.124 (0.024)	0.096 (0.017)	-0.026 (0.022)	0.087 (0.019)	0.103 (0.019)	0.069 (0.035)	0.118 (0.023)	0.127 (0.017)	0.021 (0.023)	0.077 (0.020)	0.071 (0.016)
Mean ln Hourly Earnings	0.158 (0.020)	0.144 (0.014)	0.045 (0.011)	-0.032 (0.016)	0.012 (0.014)	0.032 (0.013)	0.176 (0.021)	0.093 (0.012)	0.025 (0.009)	0.079 (0.017)	0.068 (0.014)	0.038 (0.011)
R ²	0.073	0.130	0.046	0.001	0.026	0.042	0.178	0.168	0.165	0.090	0.099	0.070
N	762	752	741	672	669	665	322	322	322	318	318	316

All regressions include year dummies.

Dependent variable: mean of ln weekly hours in detailed occupation cell (mean of hours, wages, and standard deviation of wages calculated across a maximum of 78 occupational cells in each of 10 years of data in Germany, and across a maximum of 42 occupational cells in each of 7 years of data in US).

^aData are for West German and US non-farm civilian workers with greater than 5 and less than 90 h of work per week.

Individual-level Regressions in Bell and Freeman (2000)

Table 5

Work hours and earnings inequality regressions at the individual level. Individual level data for West German and US workers^a (GSOEP Pooled Data for Germany, 1985–1995; NLSY Pooled Data for US 1989–1996)

Independent variables	All German workers		Male German workers		All US workers		Male US workers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ln of hourly earnings	0.033 (0.005)	-0.017 (0.005)	-0.004 (0.005)	-0.023 (0.006)	0.034 (0.003)	0.012 (0.003)	0.014 (0.003)	0.007 (0.004)
Standard deviation of ln wage in occupation cell ^b	0.078 (0.011)	0.066 (0.017)	0.013 (0.017)	0.018 (0.017)	0.170 (0.020)	0.139 (0.019)	0.225 (0.027)	0.216 (0.026)
Educational controls ^c		YES		YES		YES		YES
Female dummy		-0.211 (0.007)				-0.119 (0.003)		
Married dummy		-0.039 (0.006)		0.040 (0.006)		-0.009 (0.002)		-0.022 (0.003)
N	25,441	25,441	16,501	16,501	50,368	50,368	27,195	27,195
R ²	0.008	0.184	0.004	0.018	0.016	0.084	0.016	0.022

All regressions include year dummies.

Dependent variable: ln usual weekly hours.

^aWest German and US non-farm civilian workers with greater than or equal to 20 and less than or equal to 90 h of work per week.

^bStandard deviation of wages calculated across a maximum of 78 occupational cells in each of 10 years of German data and across a maximum of 42 occupational cells in each of 7 years of US data.

^cCategorical Education Dummy Variables given for US as: (1) less than high school; (2) some high school; (3) high school graduate; (4) some college; (5) college graduate; (6) post-college education, for US. Education Dummy Variables for Germany are: (1) no school degree; (2) secondary-school degree; (3) non-classified degree; (4) technical degree; (5) high school degree; (6) other degree.

Effect of Hours on Future Wages (Bell and Freeman, 2000)

Table 6
The effect of hours worked in the past on current hourly earnings. NLSY data for US workers and GSOEP data for German workers^a

Independent variables	German workers				US workers		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average ln hours 1989–1993	0.149 (0.022)	0.106 (0.023)	0.091 (0.025)	0.070 (0.038)	0.136 (0.019)	0.111 (0.019)	0.105 (0.019)
Average ln hourly earnings 1989–1993	0.640 (0.015)	0.587 (0.018)	0.538 (0.019)	0.598 (0.030)	0.768 (0.012)	0.649 (0.012)	0.622 (0.013)
Promotion variable ^b				–0.017 (0.029)		0.081 (0.011)	0.079 (0.011)
Ln tenure with current employer		–0.002 (0.009)	–0.003 (0.009)	–0.035 (0.014)		0.048 (0.004)	0.045 (0.005)
Female dummy		–0.097 (0.019)	–0.088 (0.022)	–0.082 (0.033)		–0.038 (0.012)	–0.025 (0.013)
Married dummy		–0.002 (0.017)	–0.004 (0.018)	0.023 (0.027)		0.052 (0.012)	0.051 (0.012)
Educational controls ^c		YES	YES	YES		YES	YES
Occupation dummy			YES	YES			YES
Industry dummy			YES	YES			YES
N	2015	1948	1948	954	7142	6872	6872
Adjusted R ²	0.502	0.546	0.564	0.576	0.420	0.466	0.481

Dependent variable: ln hourly earnings, 1996 (US) or 1995 (Germany).

^aAll German and US workers with reported hours in one or more years 1989–1993 and 1995 (Germany) or 1996 (US). West German and US workers with weekly hours of work greater than or equal to 5 and less than or equal to 90.

^bIn Germany, workers were asked whether they will likely be promoted in 1993. In the US, workers were asked whether they were promoted in 1996.

^cCategorical Education Dummy Variables given for US as: (1) less than high school; (2) some high school; (3) high school graduate; (4) some college; (5) college graduate; (6) post-college education, for US. Education Dummy Variables for Germany are: (1) no school degree; (2) secondary-school degree; (3) non-classified degree; (4) technical degree; (5) high school degree; (6) other degree.

Effect of Hours on Promotions (Bell and Freeman, 2000)

Table 7

The effect of hours worked in the past on the probability of promotion. NLSY Data for US Workers^a, GSOEP Data for German Workers^a

Independent variables	German workers				US workers			
	(1)	(1')	(2)	(2')	(3)	(3')	(4)	(4')
Average ln hours 1989–1993	0.606 (0.098)	0.162 (0.026)	0.360 (0.109)	0.093 (0.028)	0.187 (0.052)	0.037 (0.010)	0.183 (0.056)	0.035 (0.011)
Average ln hourly earnings 1989–1993	-0.209 (0.057)	-0.056 (0.015)	-0.287 (0.067)	-0.074 (0.017)	0.135 (0.029)	0.027 (0.006)	0.030 (0.035)	0.006 (0.007)
Educational controls ^b			YES	YES				
ln AFQT test percentile							0.067 (0.020)	0.013 (0.004)
Female dummy			-0.417 (0.074)	-0.103 (0.017)			-0.030 (0.037)	-0.006 (0.007)
Married dummy			-0.217 (0.068)	-0.058 (0.018)			0.236 (0.036)	0.046 (0.007)
N	2427		2427		10,082		9588	
Log likelihood	-1162.2		-1114.5		-3670.4		-3402.7	

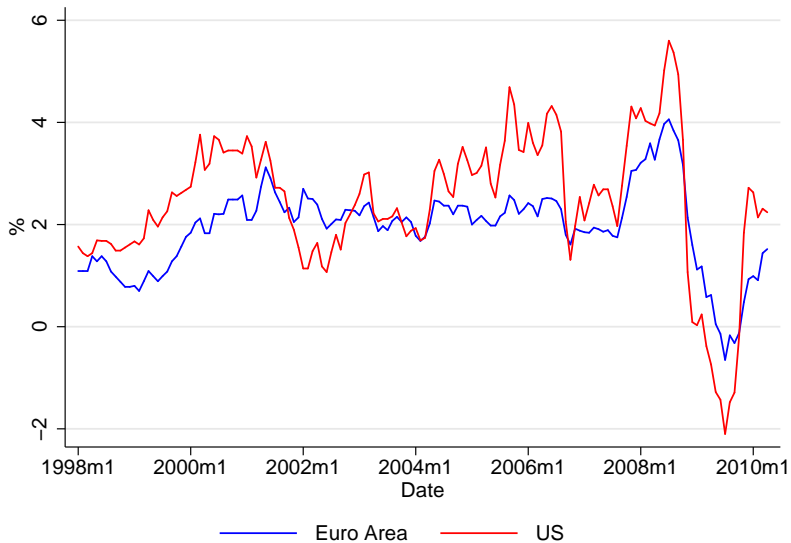
Dependent variable US: = 1 if individual received a promotion in main job since last interview year, 1996; = 0 otherwise.

Dependent variable Germany: = 1 if individual indicated that they expect a promotion in 1993; = 0 otherwise.

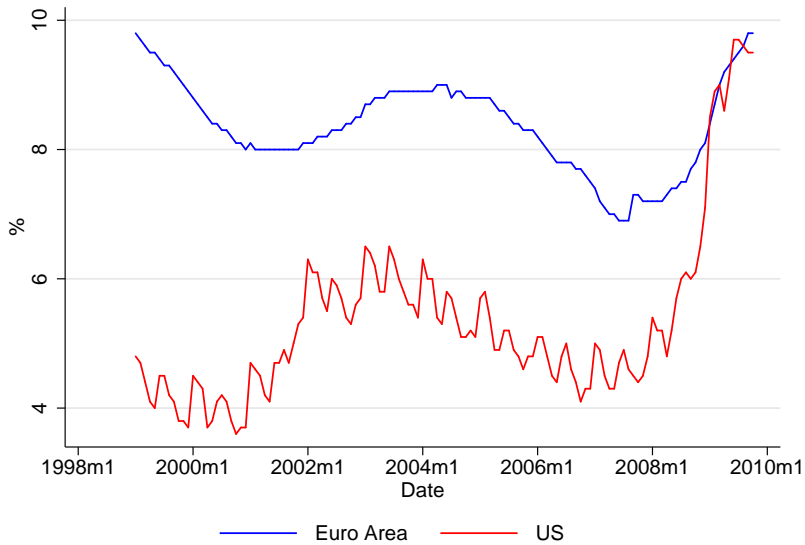
^aAll US and German workers with reported hours in one or more of years 1989–1993 and in 1995 (Germany) or 1996 (US). West German and US workers with weekly hours of work greater than or equal to 5 and less than or equal to 90.

^bCategorical Education Dummy Variables given for US as: (1) less than high school; (2) some high school; (3) high school graduate; (4) some college; (5) college graduate; (6) post-college education, for US. Education Dummy Variables for Germany are: (1) no school degree; (2) secondary-school degree; (3) non-classified degree; (4) technical degree; (5) high school degree; (6) other degree.

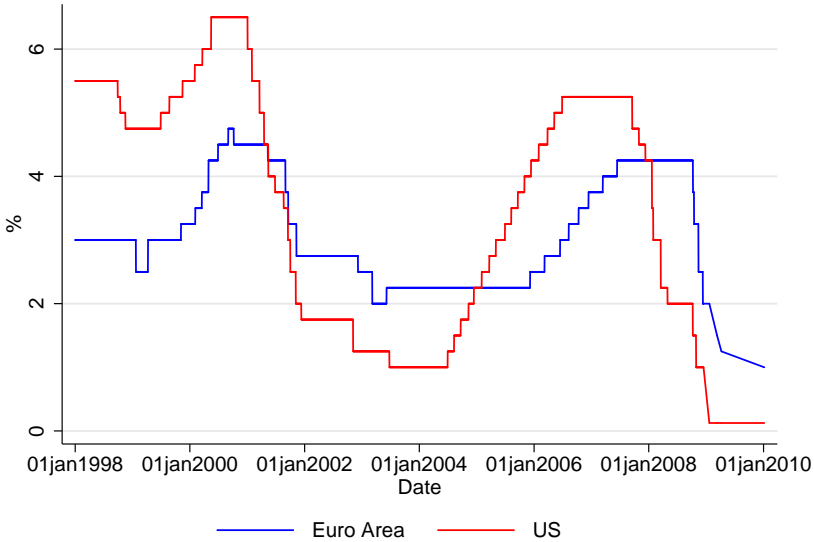
Annual CPI Inflation in Euro Area and US



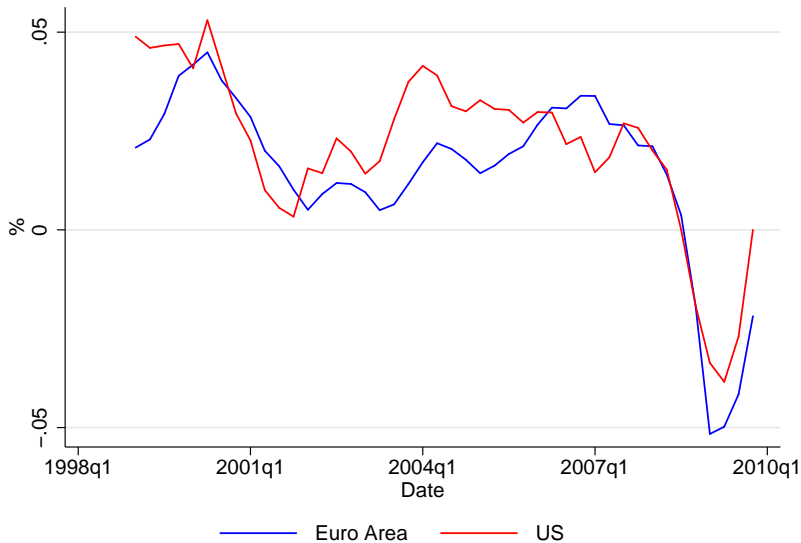
Unemployment Rate in Euro Area and US



Federal Funds Rate and ECB Refinancing Rate



GDP per Capita Growth in Euro Area and US



New Keynesian Models

- ▶ “New Keynesian versus Old Keynesian Government Spending Multipliers”
by John F. Cogan, Tobias Cwik, John B. Taylor and Volker Wieland
- ▶ “Keynesian government spending multipliers and spillovers in the euro area”
by Tobias Cwik and Volker Wieland
- ▶ Downloadable from
<http://www.volkerwieland.com/research.htm>

Multiplier Effects?, Cogan et al (2009)

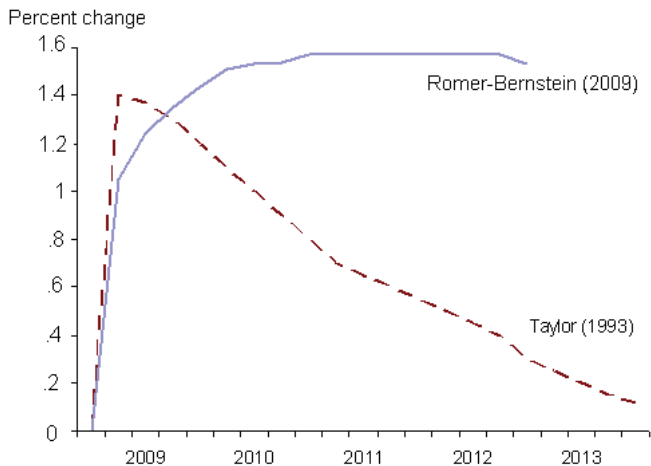


Figure 1. Estimated Impact on GDP of a Permanent Increase in Government Purchases of 1 percent of GDP

Multiplier Effects?, Cogan et al (2009)

Table 1: Impact of a Permanent Increase in Government Spending by 1 Percent of GDP
(federal funds rate set to zero throughout 2009 and 2010)

	Percentage increase in real GDP				
	2009Q1	2009Q4	2010Q4	2011Q4	2012Q4
Romer/Bernstein	1.05	1.44	1.57	1.57	1.55
Smets/Wouters	1.03	0.89	0.61	0.44	0.40

Fiscal Stimulus US, Cogan et al (2009)

Table 3. Increased Deficit, Federal Government Purchases, and Transfers to State and Local Governments for Purchases of Goods and Services in the February 2009 Stimulus Legislation (billions of dollars)

Fiscal Year	Increase in Federal Purchases	Increase in Transfers to States, Localities	Increase in Federal Deficit*
2009	21	48	184
2010	47	107	400
2011	46	47	134
2012	36	8	36
2013	25	4	27
2014	27	0	22
2015	11	0	5
2016	-2	0	-8
2017	-3	0	-7
<u>2018</u>	<u>-2</u>	<u>0</u>	<u>-6</u>

Source: Authors' calculations derived from Congressional Budget Office, "Cost Estimate for Conference Agreement for H.R.1", February 13, 2009

*Excludes impact of interest payments on the public debt incurred to finance the stimulus package.

Government Spending and real GDP, Cogan et al (2009)

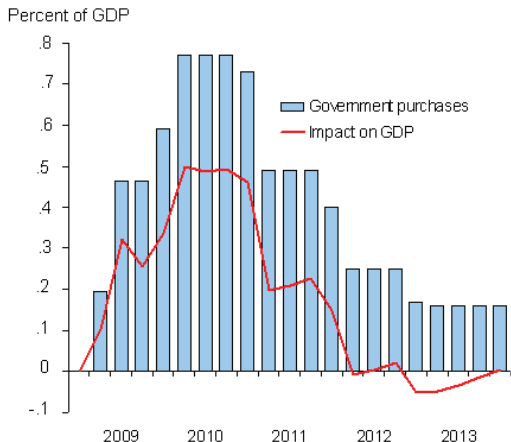


Figure 2. Estimated Output Effects of Government Purchases in the February 2009 Stimulus Legislation. (Government purchases equal federal purchases plus 60 percent of transfers to state and local governments for purchases of goods and services)

Consumption and Investment, Cogan et al (2009)

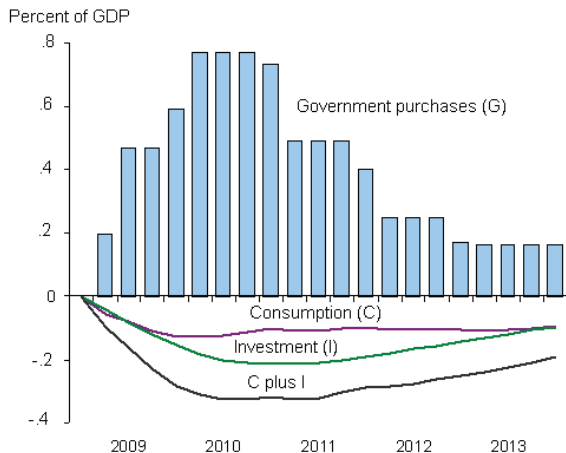


Figure 3. Crowding Out of Consumption and Investment in the February 2009 Stimulus Legislation (Government purchases are as in Figure 2)

Fiscal Stimulus Euro Area, Cwik and Wieland (2009)

Table 1: Overview of the fiscal stimulus packages in the euro area

<i>country</i>	Total fiscal package (bln Euro)		Expenditures (bln Euro)		Total fiscal package (percent of GDP)		Expenditures (percent of GDP)	
	2009	2010	2009	2010	2009	2010	2009	2010
Austria	4.9	4.6	1.4	1	1.71	1.63	0.48	0.36
Belgium	1.3	1.2	0.9	0.8	0.36	0.33	0.27	0.24
Germany	35.9	48.4	18	13.6	1.44	1.93	0.72	0.54
Greece	0	0	0	0	0.00	0.00	0.00	0.00
Spain	26.8	14.7	12.1	0	2.44	1.34	1.10	0.00
Finland	2.4	2.4	0.4	0.4	1.25	1.25	0.23	0.23
France	17	4	16.3	4	0.87	0.2	0.83	0.2
Ireland	0	0	0	0	0.00	0.00	0.00	0.00
Italy	-0.3	-0.8	3.1	0.2	-0.02	-0.05	0.19	0.01
Netherlands	3.1	2.9	0.2	0	0.53	0.49	0.03	0.00
Portugal	1	0.3	0.9	0.3	0.6	0.18	0.54	0.18
EU-11	92	77.6	53.2	20.4	1.01	0.85	0.58	0.22

Source: Saha and von Weizsäcker (2009) "Estimating the size of the European stimulus packages for 2009 An Update" and the stability programs provided by the finance ministries for the European Commission.

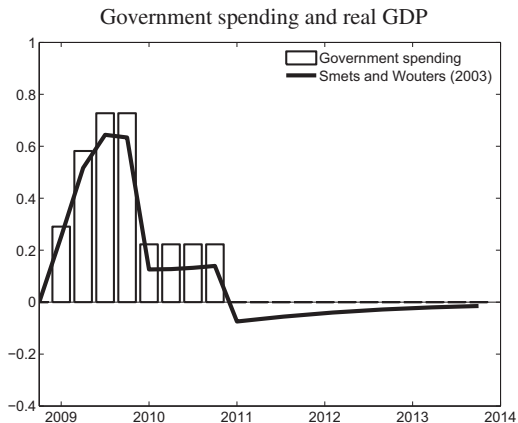
Fiscal Stimulus Germany, Cwik and Wieland (2009)

Category	Measure	2009 (bln Euro)	2010 (bln Euro)
Tax cuts	Degressive depreciation deduction	1.94	4.33
	Higher tax-free allowances for companies	0.24	0.37
	Suspension of car tax on on new vehicles	0.44	0.13
	Tax deductibility of professional commute	4.00	4.00
	Package for tax burden reduction, stabilisation of		
	Social security contributions and investment in families	4.22	12.04
	Income tax cut	2.90	6.04
	Reduction in health insurance contributions	3.00	6.50
	State payment of 50 percent social insurance for short-time workers	1.15	1.15
	Reform of car tax	0.09	0.17
		17.98	34.73
Extra spending	Investments into transport infrastructure	1.00	1.00
	Longer eligibility for short-time compensation	0.00	0.00
	Improvement of regional economic structure	0.30	0.00
	Infrastructure investment programme	8.65	8.68
	Innovation support programme	0.45	0.45
	Retraining and stronger job service	1.59	1.59
	Increased child benefits	4.42	2.84
	Premium for new car purchases	1.50	0.00
Increased housing benefits	0.06	0.06	
		17.97	13.62

Source: Estimating the size of the European stimulus packages for 2009 An Update, Brot und Butter Brief " Der Wirtschaftskrise entgegensteuern", GDP: OECD Economic Outlook, Gross domestic product, value, market prices.

Government Spending and real GDP, Cwik and Wieland (2009)

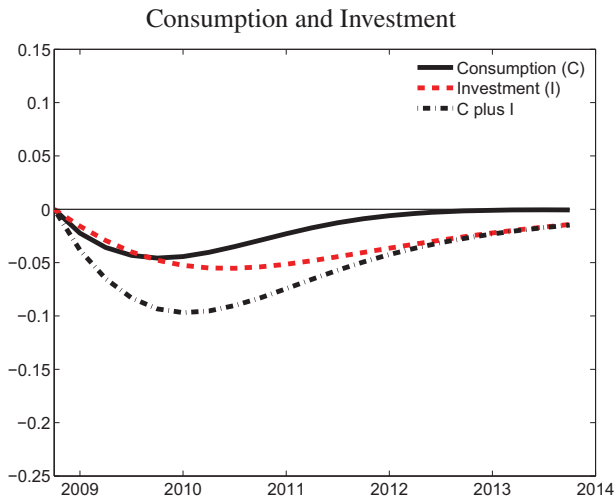
Figure 1: The impact on euro area GDP in the Smets & Wouters (2003) model



Notes: Quarterly annualized government spending is depicted by the bars in percent of GDP: 0.29085 in 2009Q1, 0.5817 in 2009Q2, 0.727125 in 2009Q3 and 2009Q4 and 0.2225 in 2010.

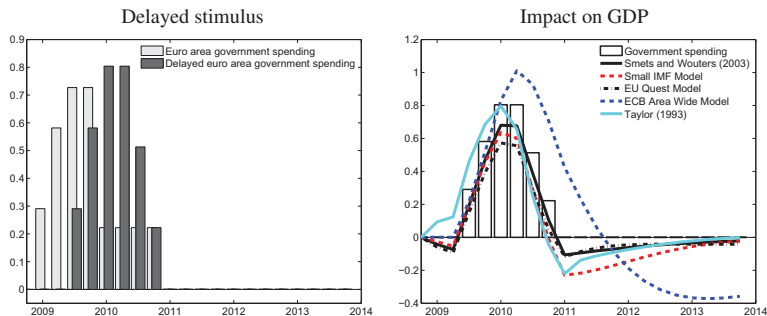
Consumption and Investment, Cwik and Wieland (2009)

Figure 2: Private spending in the Smets & Wouters (2003) model



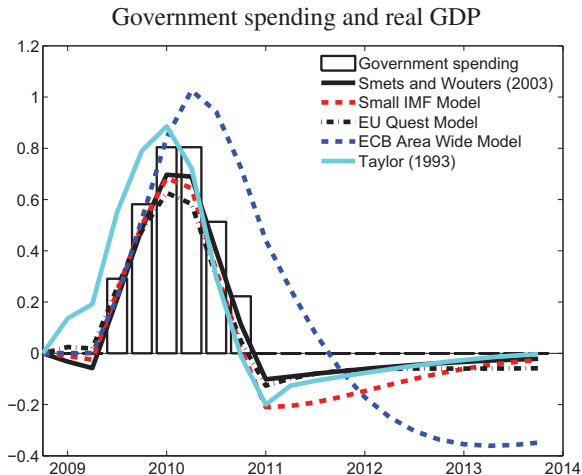
Implementation lags and anticipation effects, Cwik and Wieland (2009)

Figure 5: Implementation lags and anticipation effects



Constant Interest Rates, Cwik and Wieland (2009)

Figure 7: Impact on euro area GDP: constant interest rates in 2009



Cumulative Net Effect, Cwik and Wieland (2009)

Table 2: Cumulative GDP net off government spending

	Percentage increase in real GDP		
	EU fiscal package (2011Q1)	EU fiscal package (2013Q4)	US fiscal package (2013Q4)
Smets and Wouters (2003)	-0.20	-0.34	-1.31
ECB Area Wide Model	0.37	-0.18	0.01
Taylor (1993)	0.04	-0.11	-0.56
Small IMF Model	-0.26	-0.55	-1.67
EU Quest Model	-0.25	-0.43	-1.51

Notes: Delayed euro area fiscal stimulus package as in figure 7 assumed for the results in column 2 and 3. The interest rate is assumed constant in 2009. The cumulated euro area stimulus amounts to 0.80 percent of euro area GDP (see table 1) and the cumulated US government purchases to 2.21 percent of US GDP.

Spill-Over Effects, Cwik and Wieland (2009)

Table 3: Impact of German government expenditures

	Percentage increase in real GDP				
	2009Q1	2009Q4	2010Q4	2011Q4	2012Q4
<i>Monetary union</i>					
France	0.039	0.037	0.012	-0.01	0.002
Germany	0.737	0.685	0.414	-0.085	-0.149
Italy	0.015	-0.01	-0.049	-0.057	-0.02
<i>Flexible exchange rates</i>					
France	0.056	0.064	0.022	-0.02	-0.014
Germany	0.668	0.52	0.256	-0.123	-0.07
Italy	0.046	0.056	0.026	-0.016	-0.016

Notes: The impact of the German fiscal stimulus package is simulated with the Taylor-Model. Euro area inflation and output gap are defined as a weighted average of German, French and Italian values. In the case of the monetary union simulation the euro area nominal interest rate reacts to euro area inflation and output gap. We assume no change in the fiscal policy of France and Italy.