

**TECHNICAL APPENDIX TO:
Price Dispersion in Monetary Unions the Role Of Fiscal Shocks
by F. Canova and E. Pappa**

Intended for Referees Information and not for Publication

Price Responses to a G - shock

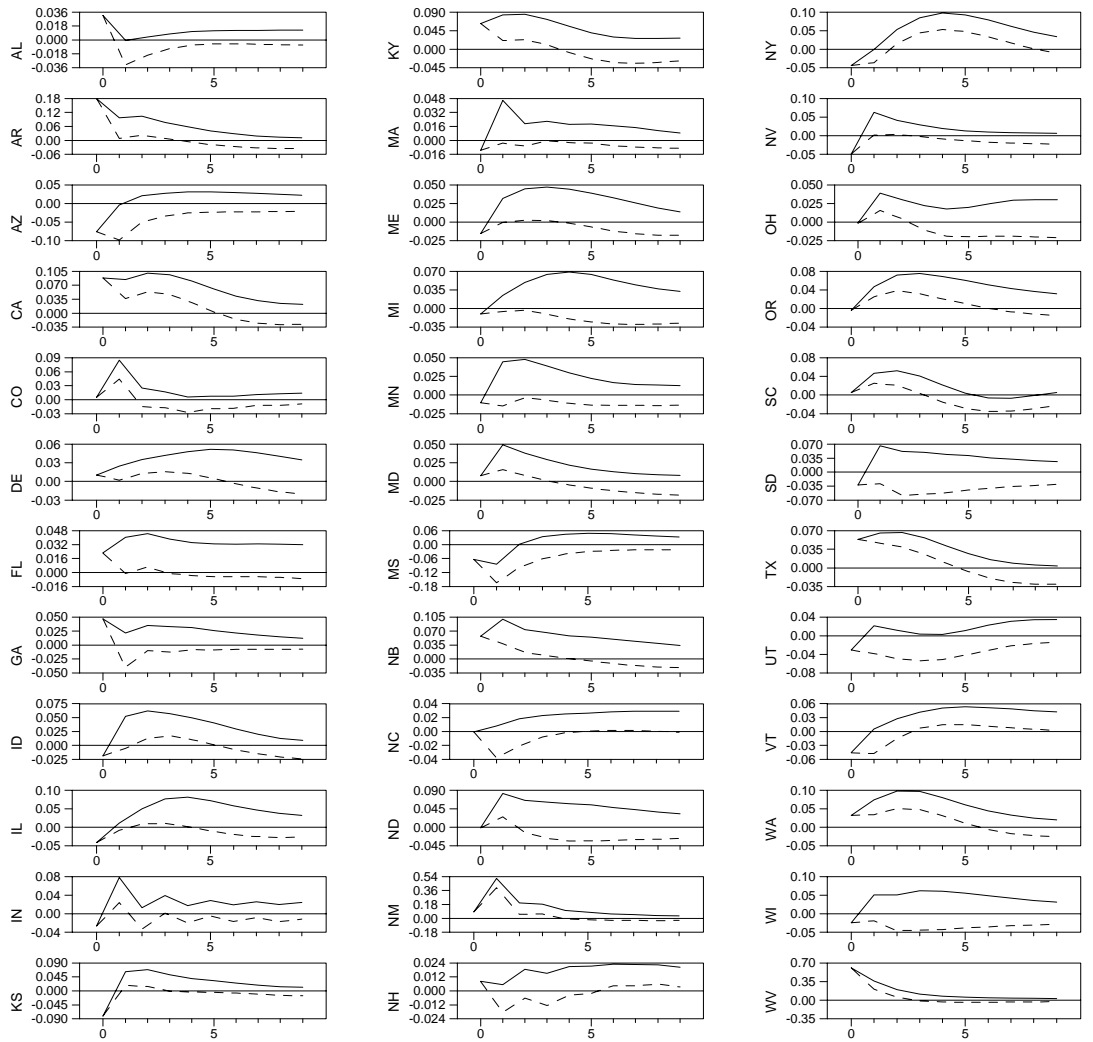


Figure A1: US States

Price Responses to a BB - shock

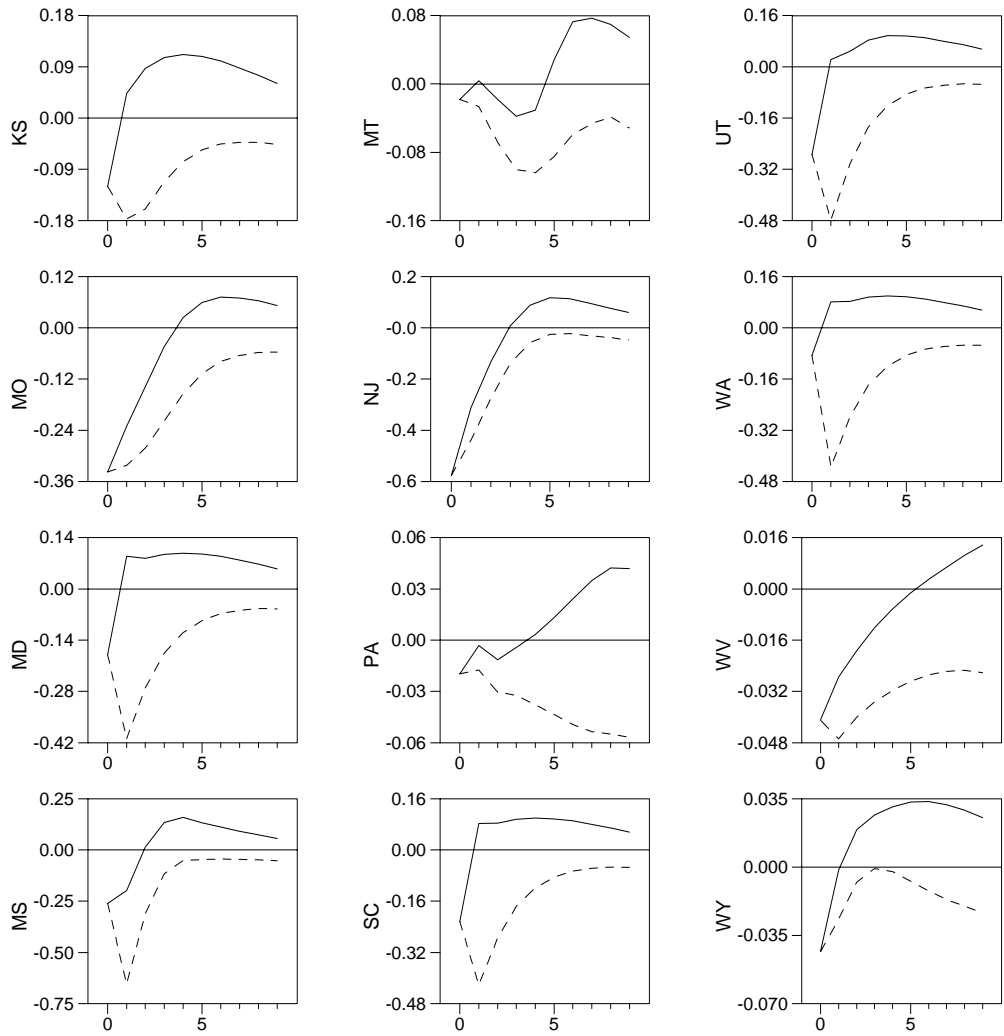


Figure A2: US States

Price Responses to a T - shock

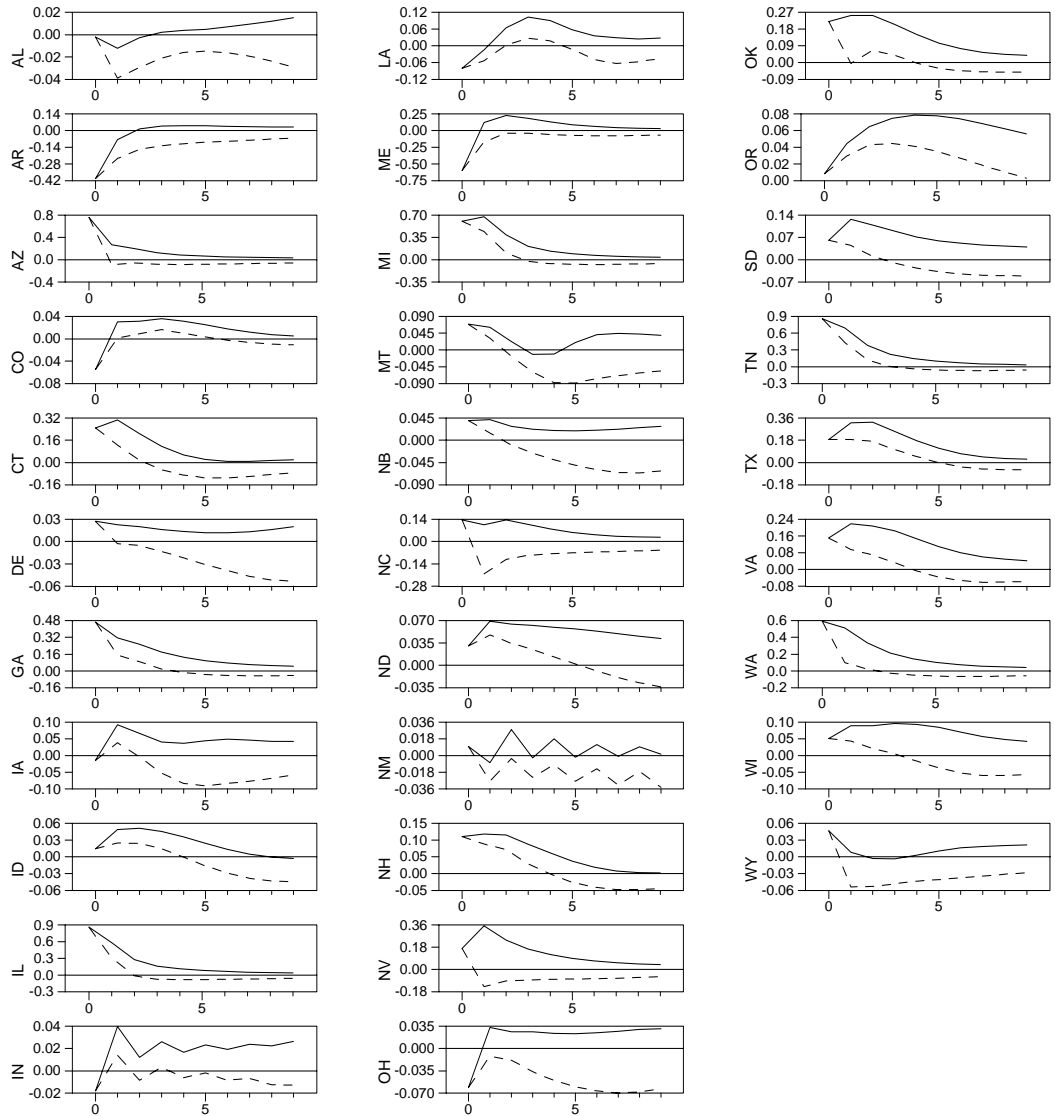


Figure A3: US States

Responses to a G - shock

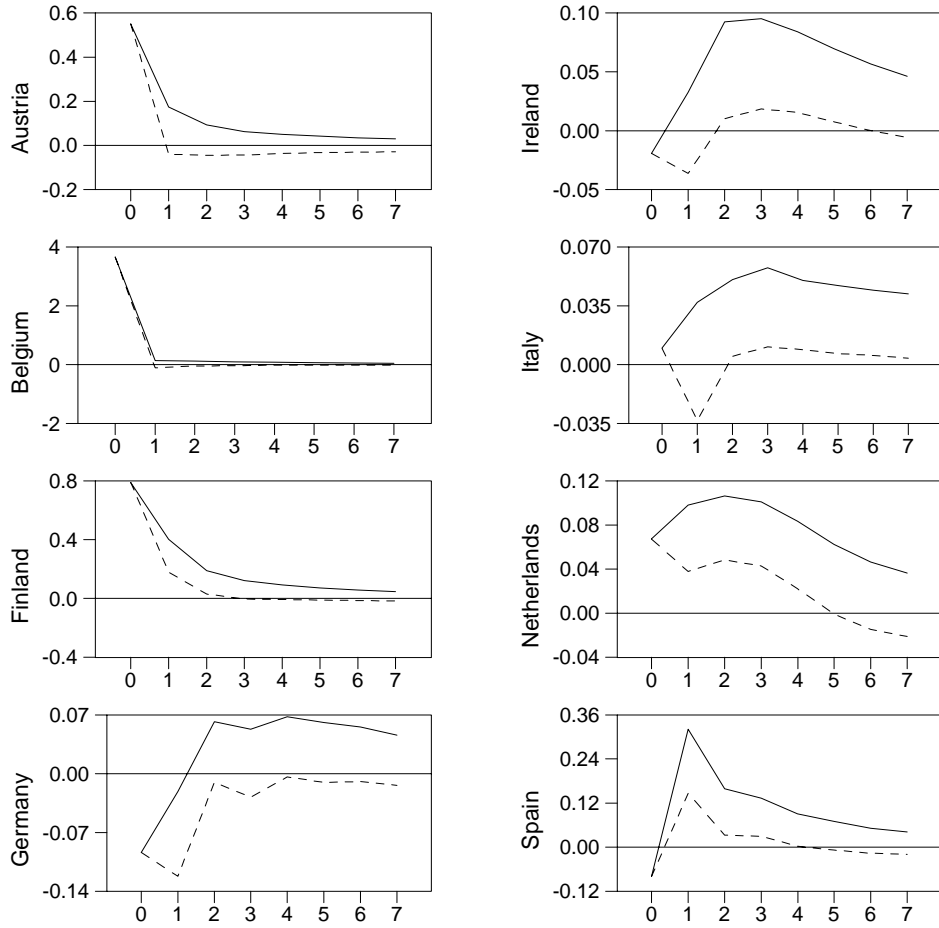


Figure A4: EMU

Responses to a T - shock

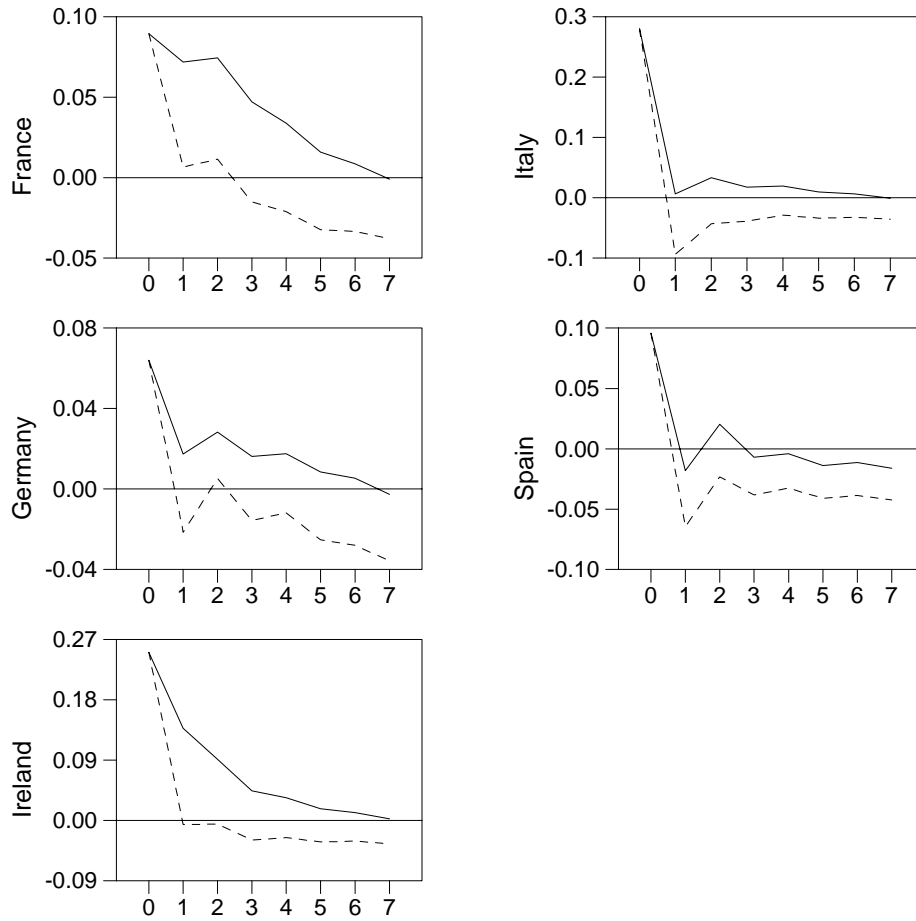


Figure A5: EMU

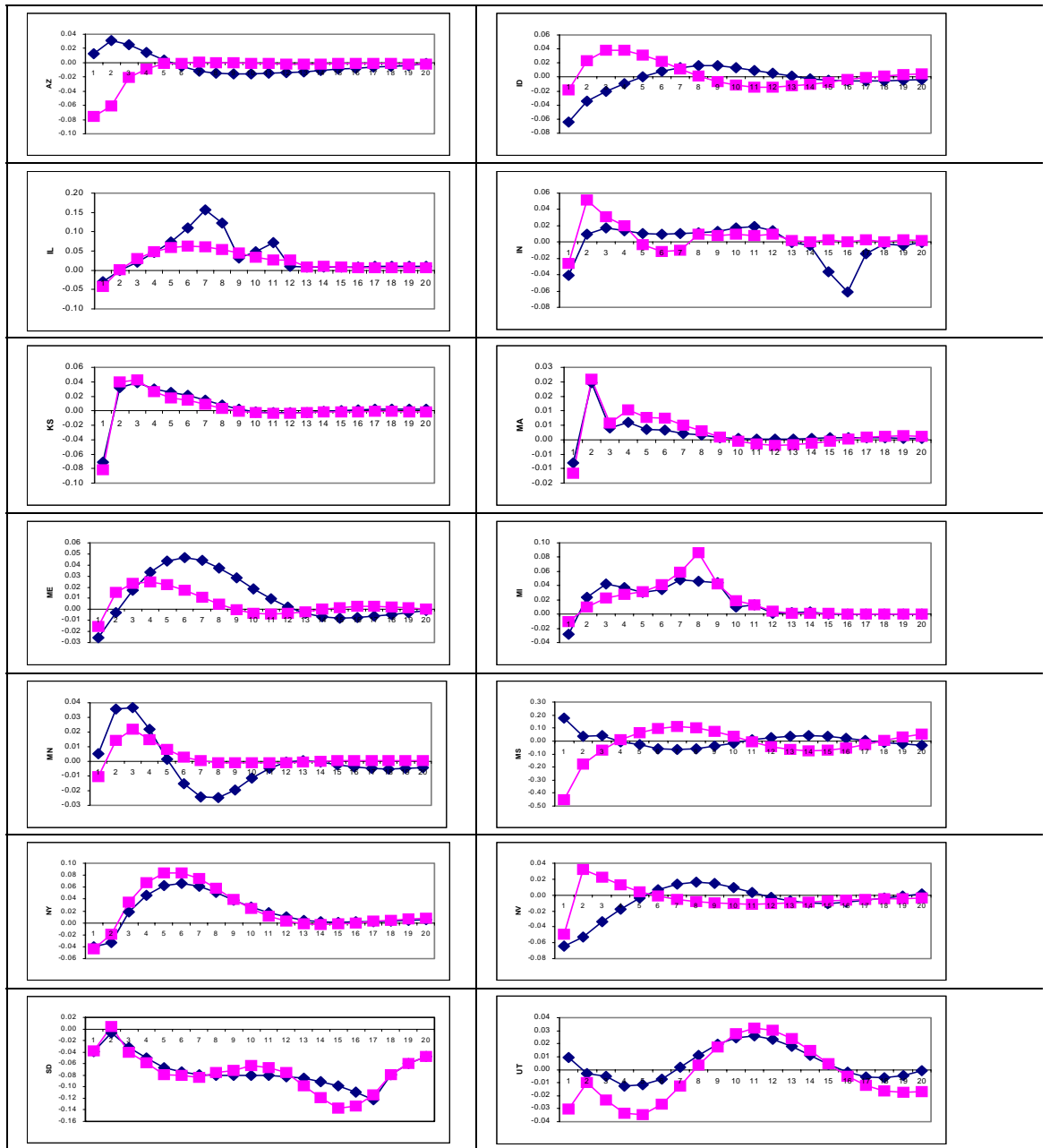


Figure A.6 Spillovers of G shocks (Blue Regional Prices, Red Local Prices)

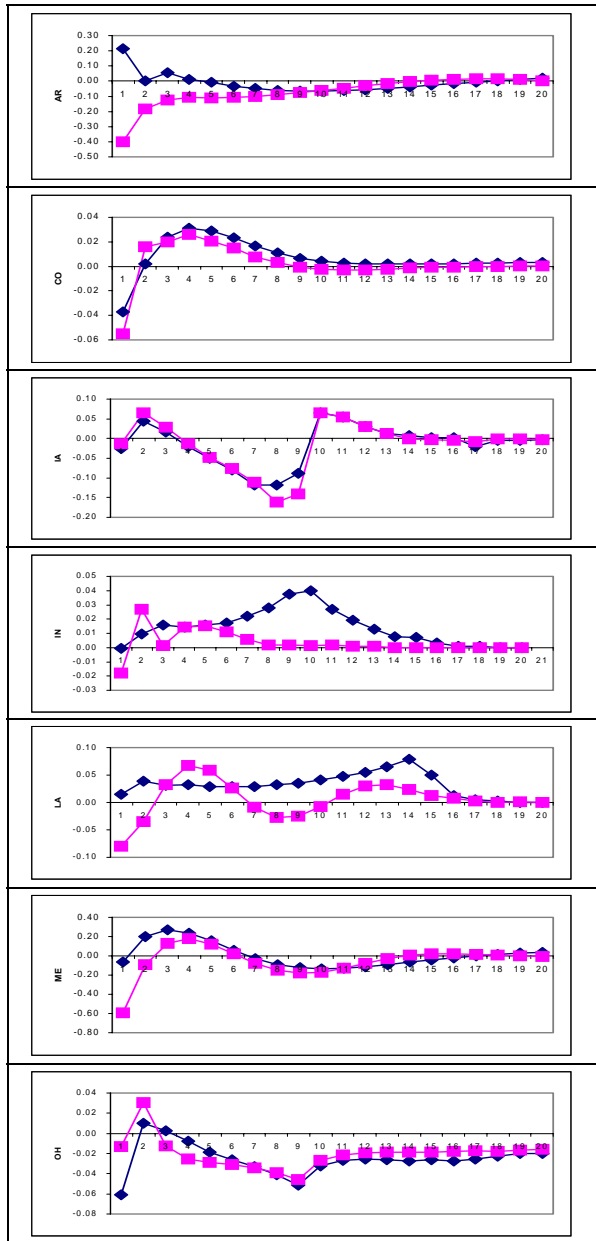


Figure A.7: Spillovers of T Shocks (Blue Regional Prices, Red Local Prices)

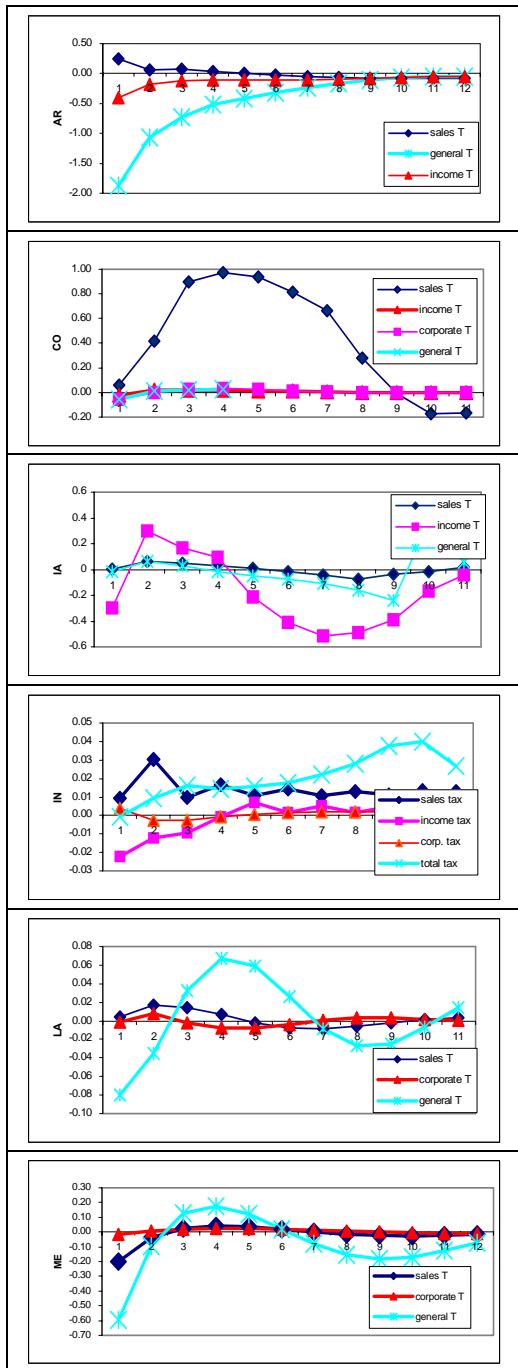


Figure A.8: Responses to Various Taxes

STATE	Size (area)	Size (Y/Y ^{US})	G/Y	DEBT/Y	DF/USDF	ACIR index	Moody rates
AL	27	45	0.10	5.02	0.11	10	Aa3
AR	26	47	0.10	2.64	0.12	9	Aa2
AZ	5	32	0.09	1.73	0.14	10	A1
CA	2	7	0.09	3.88	0.17	6	Aa2
CO	7	13	0.07	2.07	0.11	10	A1
CT	46	6	0.08	11.25	0.17	5	Aa2
DE	47	3	0.10	14.25	0.14	10	Aaa
FL	25	35	0.07	3.32	0.11	10	Aa2
GA	20	25	0.08	3.06	0.13	10	Aaa
IA	22	26	0.09	1.86	0.13	10	Aaa
ID	10	41	0.10	3.31	0.12	10	Aaa
IL	23	9	0.07	4.39	0.14	4	Aa2
IN	37	27	0.08	2.47	0.13	10	Aa2
KS	12	19	0.08	1.49	0.12	10	Aa2
KY	35	38	0.10	8.53	0.12	10	Aaa
LA	32	12	0.09	7.82	0.08	4	A2
MA	44	10	0.10	10.02	0.18	3	Aa2
MO	17	22	0.07	3.16	0.11	10	Aaa
ME	38	43	0.11	8.34	0.13	9	Aa2
MI	21	17	0.09	3.53	0.15	6	Aaa
MN	13	15	0.10	3.78	0.19	8	Aaa
MD	41	1	0.09	7.08	0.16	6	Aaa
MS	30	48	0.11	4.69	0.11	9	Aa3
MT	3	37	0.11	6.13	0.07	10	Aa3
NB	14	20	0.08	2.39	0.12	10	Aa3
NC	28	30	0.09	2.22	0.14	10	Aaa
ND	16	33	0.12	4.20	0.10	8	A1
NM	4	28	0.12	4.50	0.13	10	Aa1
NJ	45	8	0.08	7.68	0.14	10	Aa2
NH	43	29	0.08	10.09	0.05	2	Aa2
NY	29	5	0.10	9.77	0.18	3	A2
NV	6	4	0.07	3.52	0.14	4	A1
OH	34	18	0.08	4.00	0.11	10	Aa1
OK	18	34	0.09	5.73	0.09	10	Aa3
OR	9	21	0.10	12.09	0.10	8	Aa2
PA	31	23	0.09	5.25	0.13	6	Aa2
RI	48	31	0.11	14.56	0.14	10	Aa2
SC	39	44	0.10	6.37	0.13	10	Aaa
SD	15	42	0.10	7.98	0.07	10	A1
TN	33	36	0.08	2.90	0.09	10	Aa2
TX	1	11	0.06	1.81	0.08	8	Aa1
UT	11	39	0.11	3.88	0.12	10	Aaa
VA	36	16	0.08	3.04	0.12	8	Aaa
VT	42	40	0.13	12.77	0.12	0	Aa1
WA	19	14	0.10	4.60	0.14	8	Aa2
WI	24	24	0.10	4.86	0.17	6	Aa3
WV	40	46	0.12	8.70	0.14	10	Aa3
WY	8	2	0.10	4.26	0.06	8	B
average			0.09	5.65	0.12		

Table A.1: Characteristics of US States

Country	Size (population)	Size (Y/Y ^{EU})	G ^c /Y	DEBT/Y	Country risk
Austria	8	7	0.19	66.3	A1
Belgium	6	6	0.22	113.9	A1
Finland	9	8	0.22	46.7	A1
France	2	2	0.24	58.4	A2
Germany	1	1	0.19	60.6	A2
Ireland	10	10	0.15	45.5	A1
Italy	3	3	0.18	113.0	A2
Netherlands	5	5	0.23	60.2	A2
Portugal	7	9	0.20	55.7	A2
Spain	4	4	0.18	60.9	A1
average			0.20	68.1	

Table A.2 Characteristics of EMU countries

Table TA2: Instantaneous US Price differential Responses and Yearly Multipliers

	G Shocks			BB shocks			T shocks		
	Price	Y Multiplier	N multiplier	Price	Y Multiplier	N multiplier	Price	Y Multiplier	N multiplier
AL	0.03	0.51	0.02				0.00	0.20	-0.001
AR	0.18	2.06	0.51				-0.40	1.21	0.03
AZ	-0.08	0.92	0.03				0.76	2.32	0.06
CA	0.09	1.71	0.02						
CO	0.01	1.62	0.06				-0.05	0.001	0.001
CT							0.25	0.72	-0.03
DE	0.01	2.91	0.01				0.03	0.45	0.005
FL	0.02	1.72	0.23						
GA	0.05	0.41	0.02				0.47	3.62	0.06
IA							-0.01	0.93	0.01
ID	-0.02	1.50	0.06				0.01	0.57	0.01
IL	-0.04	0.28	0.001				0.86	0.02	-0.001
IN	-0.03	2.14	0.03				-0.02	0.13	0.01
KS	-0.08	0.40	0.04	-0.12	-34.69	-0.26			
KY	0.06	0.75	0.12						
LA							-0.08	2.73	0.02
MA	-0.01	5.73	0.16						
MO				-0.34	-2.45	-0.09			
ME	-0.02	0.51	0.01				-0.60	6.57	0.05
MI	-0.01	2.09	0.02				0.60	1.41	-0.08
MN	-0.01	2.29	0.02						
MD	0.01	0.99	0.04	-0.18	-11.09	-0.27			
MS	-0.06	1.47	0.06	-0.26	-17.46	-0.001			
MT				-0.02	-1.50	0.01	0.07	0.21	-0.001
NB	0.06	6.54	0.06				0.04	0.43	0.01
NC	0.001	2.54	0.07				0.14	3.11	0.13
ND	0.001	4.72	-0.11				0.03	0.61	0.001
NM	0.08	23.60	0.13				0.01	0.10	0.001
NJ				-0.58	-3.78	0.17			
NH	0.01	0.26	0.07				0.11	0.27	-0.02
NY	-0.04	3.89	0.06						
NV	-0.05	1.03	-0.001				0.17	3.00	0.08
OH	0.00	1.20	0.07				-0.06	0.62	0.001
OK							0.22	9.06	0.09
OR	0.00	1.01	0.03				0.01	0.54	0.01
PA				-0.02	-0.10	0.01			
SC	0.01	0.98	0.03	-0.22	-10.56	-0.30			
SD	-0.03	10.80	0.08				0.06	2.06	0.001
TN							0.86	11.10	0.20
TX	0.05	1.40	0.02				0.19	7.96	0.12
UT	-0.03	0.70	0.03	-0.27	-14.44	-0.39			
VA							0.15	1.85	0.04
VT	-0.05	1.18	0.02						
WA	0.03	1.27	0.02	-0.09	-11.99	-0.15	0.59	7.91	0.27
WI	-0.02	1.25	0.01				0.05	0.10	0.01
WV	0.61	22.58	0.28	-0.04	-1.82	-0.001			
WY				-0.04	-0.80	0.05	0.05	0.64	-0.02
average	0.02	3.19	0.05	-0.18	-0.75	-0.28	0.14	2.27	0.03

Table TA3: Instantaneous EMU Price differential Responses and Yearly Multipliers

	G Shocks			BB shocks			T shocks		
	Price	Y Multiplier	N multiplier	Price	Y Multiplier	N multiplier	Price	Y Multiplier	N multiplier
Austria	0.55	2.41	0.19						
Belgium	3.66	6.30	-0.28						
Finland	0.79	2.53	0.97						
France							0.09	1.68	-0.01
Germany	-0.09	0.25	0.01				0.06	0.13	0.001
Ireland	-0.02	0.79	-0.07				0.25	9.20	0.06
Italy	0.01	1.35	-0.03				0.28	5.38	0.22
Netherland	0.07	0.62	0.01						
Spain	-0.08	4.69	0.04				0.10	0.60	0.01
Average	0.61	3.81	0.10				0.10	3.40	0.05