

## Effects of Fiscal Stimulus in Structural Models

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### Web Appendix: Key Model Parameters

<b>Long Run Growth Rates and Interest Rates</b>								
	<b>CEE</b>	<b>BoC-GEM</b>	<b>FRB-US</b>	<b>GIMF</b>	<b>OECD Fiscal</b>	<b>NAWM</b>	<b>QUEST</b>	<b>SIGMA</b>
Model Frequency	Quarterly	Quarterly	Quarterly	Annual	Quarterly	Quarterly	Quarterly	Quarterly
Technology Growth Rate (p.a.)	0%	1.0%	1.1%	1.5%	1.2%	0%	1.5%	0%
Population Growth Rate (p.a.)	0%	1.0%	1.1% (2010; varies over time)	1.0%	0.4%	0%	0.2%	0%
Gross Real Interest Rate (p.a.)	3%	3%	Endogenous (no steady state value)	3%	2%	3%	2%	2%
UIP-Related Risk Premium	-	Yes (small)	Yes (small)	No	No	Yes (small)	Yes (small)	Yes (small)
Government Debt Risk Premium	No	No	No	No	No	No	Yes (3 bp per 1 pp gov. debt)	No

<b>Monetary Policy Rule Coefficients</b>								
	<b>CEE</b>	<b>BoC-GEM</b>	<b>FRB-US</b>	<b>GIMF (annual)</b>	<b>OECD Fiscal</b>	<b>NAWM</b>	<b>QUEST</b>	<b>SIGMA</b>
Lagged Int. Rate	0.8	0.95	0	0.3	0.9	0	0.82	0.7
Long-Run Weight on CPI Inflation	1.5	1.9	1.5	2.0 in US, RC; 2.5 EU; 1.9 JA	1.5	1.5	2	2
Contemporaneous or Lead on CPI Inflation	1-quarter-ahead (qu.-on-qu. inflation)	1-year-ahead (yr-on-yr inflation)	Cont.	Weighted average of cont. and 1-year-ahead	Cont. (yr-on-yr inflation)	Cont. (yr-on-yr inflation)	Cont. (yr-on-yr inflation)	Cont. (qu-on-qu inflation)

Inflation Target (annual)	0%	2.5% US 1% JA 2% elsewhere	2%	2.5% US 1% JA 2% elsewhere	2%	2%	2%	2%
Weight on Output Gap	0.1	0	1.0	0	0.5	0.5	0.05	0
Weight on GDP Growth	0	0.25 in US; 0 elsewhere	0	0	0	0	0	0.25
Weight on Nominal Exchange Rate	-	100000 in AS, 0 elsewhere	0	100000 in AS, 0 elsewhere	-	0	0	0

Fiscal Rule Coefficients								
	CEE	BoC-GEM	FRB-US	GIMF (annual)	OECD Fiscal	NAWM	QUEST	SIGMA
Targeting or Instrument Rule	-	Instrument rule. Lump-sum taxes respond to debt-to-GDP ratio.	Instrument rule. Labor income taxes respond, with smoothing, to deficit- and/or debt-to-GDP ratio	Targeting rule. Deficit-to-GDP ratio responds to output gap. Lump-sum taxes adjust.	Instrument rule. Lump-sum taxes respond to deficit.	Instrument rule. Lump-sum taxes respond to debt-to-GDP ratio.	Instrument rule. Labor income taxes respond to deficit- and/or debt-to-GDP ratio.	Instrument rule. Labor income taxes respond, with smoothing, to deficit- and/or debt-to-GDP ratio.
Output Gap Coefficient	-	-	-	0.34 US; 0.49 EU; 0.33 JA; 0.25 AS; 0.30 RC	-	-	-	-
Debt Gap Coefficient	-	0.0076	0.05 (change in tax rate)	0	0	0.1	0.01 (debt)	0.02
Deficit Gap Coefficient	-	-	0.1 (change in tax rate)	-	-	-	0.1 (change in debt)	0.05 (change in debt)



<b>Elasticities of Substitution Between ...</b>								
	<b>CEE</b>	<b>BoC-GEM</b>	<b>FRB-US</b>	<b>GIMF (annual)</b>	<b>OECD Fiscal</b>	<b>NAWM</b>	<b>QUEST</b>	<b>SIGMA</b>
Capital and Labor	1	0.7 tradables, nontradables, gasoline. 0.6 oil, commodities.	1	1	1	1	1	1
Capital/Labor and Oil Reserves in Oil Production	-	0.6	-	-	-	-	-	-
Capital/Labor and Commodities Reserves in Commodities Production	-	0.6	-	-	-	-	-	-
Imports from Different Regions (for models with >2 regions)	-	1.5 final goods. 3 oil and commodities.	-	1.5	-	-	1	-
Domestic and Imported Intermediate Goods	-	10 oil; 5 commodities; 1.5 final goods	-	1.5	-	1.5	1.2	-
Tradable and Nontradable Intermediates	-	0.5	-	0.5	-	-	0.5	-
Domestic and Imported Final Goods	-	1.5	-	1.5	-	-	1.2	1.5

Steady State Gross Markups								
	CEE	BoC-GEM	FRB-US	GIMF (annual)	OECD Fiscal	NAWM	QUEST	SIGMA
Nontradables Intermediates Prices	1.2	1.28 US; 1.42 CA; 1.41 JA; 1.25 AS; 1.38 RC; 1.23 CX	-	1.1	1.1	-	1.24 EA, NEA; 1.20 U;S 1.18 RoW	-
Tradables Intermediates Prices	-	1.15 US; 1.2 CA; 1.25 JA; 1.14 AS; 1.3 RC; 1.18 CX	-	1.1	-	1.2	1.12	1.2
Nominal Wages	1.05	1.16 US; 1.2 CA; 1.25 JA; 1.16 AS; 1.3 RC; 1.3 CX	1.05	1.1	1.1	1.2	1.2	1.33
Final Goods Prices	-	-	1.2	1.05 (+1.05 for retailing)	-	-	-	-
Imported Goods Prices (for pricing-to- market)	-	-	-	1.025 (Final & Intermediate)	-	-	-	-

Financial Sector								
	CEE	BoC-GEM	FRB-US	GIMF (annual)	OECD Fiscal	NAWM	QUEST	SIGMA
Leverage (Debt / Net Worth)	-	-	-	100%	-	-	-	95%
External Finance Premium (p.a.)	-	-	-	2.5%	-	-	-	2%

**Steady State Factor Shares and Depreciation Rates**

	<b>CEE</b>	<b>BoC-GEM</b>	<b>FRB-US</b>	<b>GIMF (annual)</b>	<b>OECD Fiscal</b>	<b>NAWM</b>	<b>QUEST</b>	<b>SIGMA</b>
Labor Income / GDP	53% (adjusting for the gross markup)	70% US; 62% CA; 64% JA; 51% AS; 69% RC; 60% CX	70% (Business sector)	60%; 54% AS (adjusting for the gross markup)	65%	70%	66%	54%
Nontradables Labor Income / GDP	-	78% US; 72% CA; 72% JA; 59% AS; 77% RC; 77% CX	-	66%; 60% AS	-	-	66%	-
Tradables Labor Income / GDP	-	66% US; 55% CA; 56% JA; 47% AS; 63% RC; 50% CX	-	54%; 48% AS	-	70%	66%	54%
Nontradables Production / Total Production	-	52.6% US; 50.5% CA; 54.6% JA; 35.0% AS; 64.9% RC; 41.5% CX	-	50%	-	-	50% EA; 53% NEA; 61% US; 51% RoW	-
Depreciation Rate of Public Capital (p.a.)	-	1%	-	4%	1.25%	10%	5%	-

Depreciation Rate of Private Capital (p.a.)	10%	8%	Housing: 1.5%; Cons. Durables: 22%; High-tech: 32%; NRS: 2.7%; Other Equipment: 13% (2010)	10%	10%	10%	6%	12%
Output Elasticity w.r.t. Public Capital	-	0.14	-	0.14	0.1	0.015	0.09	-

Quantity Adjustment Costs								
	CEE	BoC-GEM	FRB-US	GIMF (annual)	OECD Fiscal	NAWM	QUEST	SIGMA
Labor Demand by Firms	No	Yes	Yes	No	No	No	Yes	No
Consumption Spending	No	No	Yes	Yes	No	No	No	No
Investment Spending	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Retail Sales	-	-	-	Yes	-	Yes (transaction costs related to money holdings)	-	-
Intermediate Goods Imported Inputs	No	Yes	No	Yes	-	Yes	No	No
Final Goods Imported Inputs	No	Yes	No	Yes	-	No	No	No

<b>Price/Wage Adjustment Costs - Calvo <i>delta</i> or Adjustment Cost Coefficient</b>								
	<b>CEE</b>	<b>BoC-GEM</b>	<b>FRB-US</b>	<b>GIMF (annual)</b>	<b>OECD Fiscal</b>	<b>NAWM</b>	<b>QUEST</b>	<b>SIGMA</b>
Calvo or Adjustment Costs	Calvo	Adjustment Costs	Adjustment Costs	Adjustment Costs	Calvo	Calvo	Adjustment Costs	Calvo
Sticky Prices, Sticky Inflation (indexation or infl. adj. costs), or Hybrid	Sticky inflation	Sticky inflation (price indexation=0.5; wage indexation=0.5)	Sticky inflation	Sticky inflation	Sticky inflation	Hybrid (price indexation=0.5; wage indexation=0.75)	Sticky inflation	Hybrid (price indexation=0.75; wage indexation=0.75)
Wage Stickiness Coefficients	0.64	900 CA; 1050 JA, RC; 800 elsewhere	-	60 EU; 40 elsewhere	Real wage persistence: 0.73 Wage setting inertia: 0.77	0.75	23	0.85
Tradables Intermediates Price Stickiness Coefficients	-	900 JA, RC; 700 elsewhere	-	60 EU; 40 elsewhere	-	Domestic sales: 0.90 EA, 0.83 US Foreign sales: 0.30	16	Domestic sales: 0.85 Foreign sales: 0.50
Nontradables Intermediates Price Stickiness Coefficients	0.60	900 JA, RC; 700 elsewhere	-	60 EU; 40 elsewhere	0.87	-	20 EA, NEA; 16 US, RoW	-
Imported Intermediate Goods Price Stickiness Coefficients (pricing-to-market)	-		-	60 EU; 40 US; 4 elsewhere	-	-	-	-
Imported Final Goods Price Stickiness Coefficients (pricing-to-market)	-		-	20 EU; 40 US; 4 elsewhere	-	-	-	-
Final Goods Price Stickiness Coefficients	-	-	-	60 EU; 40 elsewhere	-	-	-	-