

Taylor Rules and the Prospect of Indeterminacy: A Bayesian Econometric Investigation*

Online Appendix

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1960Q1:1979Q2 Estimation Results

In the following tables we report structural parameter estimates and posterior probabilities of determinacy for a longer Great Inflation sample running from 1960Q1 to 1979Q2.

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Table 1: 1960I:1979II POSTERIOR ESTIMATES GAP RULE

	Prior			Posterior		
	Dist.	Mean	SD	$\zeta_p = 0.50$	$\zeta_p = 0.55$	$\zeta_p = 0.65$
h	Beta	0.7	0.1	0.524 [0.405,0.651]	0.514 [0.383,0.635]	0.520 [0.401,0.637]
ζ_p	Beta	—	0.1	0.586 [0.483,0.688]	0.614 [0.521,0.718]	0.644 [0.547,0.743]
α_π	Gamma	1.5	0.3	1.674 [1.189,2.191]	1.877 [1.375,2.408]	1.651 [1.138,2.158]
α_y	Gamma	0.125	0.1	0.289 [0.122,0.419]	0.296 [0.150,0.438]	0.348 [0.159,0.575]
α_{dy}	Gamma	0.125	0.1	— [—,—]	— [—,—]	— [—,—]
ρ_R	Beta	0.6	0.2	0.565 [0.399,0.721]	0.547 [0.408,0.708]	0.564 [0.400,0.742]
\bar{A}	Normal	0.370	0.15	0.405 [0.178,0.619]	0.439 [0.223,0.663]	0.431 [0.231,0.632]
$\bar{\pi}$	Normal	0.985	0.75	1.212 [0.943,1.482]	1.161 [0.905,1.433]	1.162 [0.891,1.431]
\bar{R}	Gamma	1.597	0.25	1.486 [1.239,1.736]	1.448 [1.204,1.707]	1.479 [1.232,1.714]
ρ_b	Beta	0.5	0.2	0.465 [0.149,0.763]	0.462 [0.178,0.729]	0.475 [0.173,0.760]
ρ_A	Beta	0.5	0.2	0.754 [0.587,0.886]	0.798 [0.693,0.912]	0.683 [0.356,0.882]
ρ_r	Beta	0.5	0.2	0.509 [0.323,0.699]	0.564 [0.394,0.719]	0.532 [0.309,0.711]
σ_b	Inverse Gamma	0.5	4	0.932 [0.271,1.873]	0.954 [0.267,1.755]	1.327 [0.281,2.393]
σ_A	Inverse Gamma	0.5	4	0.584 [0.338,0.816]	0.523 [0.290,0.734]	0.563 [0.340,0.783]
σ_r	Inverse Gamma	0.5	4	0.286 [0.209,0.362]	0.316 [0.218,0.402]	0.289 [0.208,0.373]
σ_ζ	Inverse Gamma	0.5	4	0.339 [0.249,0.425]	0.336 [0.242,0.423]	0.323 [0.250,0.400]
M_b	Normal	0	1	-0.039 [-0.414,0.248]	-0.058 [-0.435,0.207]	-0.002 [-0.249,0.228]
M_A	Normal	0	1	0.372 [-0.661,1.294]	0.839 [-0.560,2.162]	0.240 [-0.718,1.126]
M_r	Normal	0	1	0.372 [-0.474,1.013]	0.499 [-0.205,1.127]	0.223 [-0.621,0.982]
log p(X^T)				-141.9454	-141.5080	-140.8163
Prob(det)				0.0004	0.0000	0.0000

Notes: In each case above, the column references the prior mean of the Calvo parameter and for each case the prior standard deviation is set to 0.1. Numbers in square brackets indicate 90% confidence intervals.

Table 2: 1960I:1979II POSTERIOR ESTIMATES MIXED RULE

	Prior			Posterior		
	Dist.	Mean	SD	$\zeta_p = 0.50$	$\zeta_p = 0.55$	$\zeta_p = 0.65$
h	Beta	0.7	0.1	0.536 [0.435,0.650]	0.610 [0.484,0.741]	0.537 [0.415,0.654]
ζ_p	Beta	—	0.1	0.585 [0.478,0.701]	0.624 [0.532,0.725]	0.651 [0.543,0.755]
α_π	Gamma	1.5	0.3	1.720 [1.148,2.212]	1.716 [1.142,2.237]	1.688 [1.264,2.205]
α_y	Gamma	0.125	0.1	0.233 [0.079,0.385]	0.230 [0.094,0.362]	0.245 [0.045,0.448]
α_{dy}	Gamma	0.125	0.1	0.158 [0.005,0.296]	0.107 [0.002,0.204]	0.134 [0.002,0.261]
ρ_R	Beta	0.6	0.2	0.618 [0.473,0.756]	0.591 [0.456,0.724]	0.592 [0.434,0.756]
\bar{A}	Normal	0.370	0.15	0.418 [0.216,0.643]	0.456 [0.253,0.638]	0.439 [0.214,0.656]
$\bar{\pi}$	Normal	0.985	0.75	1.257 [0.957,1.534]	1.208 [0.942,1.476]	1.182 [0.907,1.450]
\bar{R}	Gamma	1.597	0.25	1.528 [1.251,1.798]	1.489 [1.247,1.730]	1.479 [1.209,1.731]
ρ_b	Beta	0.5	0.2	0.462 [0.142,0.754]	0.509 [0.247,0.759]	0.492 [0.168,0.789]
ρ_A	Beta	0.5	0.2	0.760 [0.624,0.896]	0.704 [0.543,0.866]	0.761 [0.639,0.888]
ρ_r	Beta	0.5	0.2	0.515 [0.348,0.680]	0.567 [0.397,0.739]	0.540 [0.374,0.708]
σ_b	Inverse Gamma	0.5	4	0.732 [0.270,1.274]	2.013 [0.302,3.372]	0.775 [0.234,1.524]
σ_A	Inverse Gamma	0.5	4	0.647 [0.348,0.908]	0.529 [0.293,0.745]	0.623 [0.337,0.866]
σ_r	Inverse Gamma	0.5	4	0.288 [0.222,0.354]	0.290 [0.222,0.362]	0.294 [0.224,0.367]
σ_ζ	Inverse Gamma	0.5	4	0.362 [0.266,0.464]	0.339 [0.250,0.433]	0.357 [0.253,0.455]
M_b	Normal	0	1	0.000 [-0.415,0.447]	0.008 [-0.192,0.206]	-0.010 [-0.461,0.471]
M_A	Normal	0	1	0.355 [-0.575,1.199]	0.214 [-0.539,0.882]	0.344 [-0.460,1.178]
M_r	Normal	0	1	0.214 [-0.437,0.832]	0.319 [-0.334,0.901]	0.313 [-0.417,0.929]
log p(X^T)				-141.6707	-139.6953	-141.0848
Prob(det)				0.0049	0.0001	0.0041

Notes: In each case above, the column references the prior mean of the Calvo parameter and for each case the prior standard deviation is set to 0.1. Numbers in square brackets indicate 90% confidence intervals.

Table 3: 1960I:1979II POSTERIOR ESTIMATES GROWTH RULE

	Prior			Posterior		
	Dist.	Mean	SD	$\zeta_p = 0.50$	$\zeta_p = 0.55$	$\zeta_p = 0.65$
h	Beta	0.7	0.1	0.553 [0.453,0.648]	0.577 [0.477,0.671]	0.586 [0.482,0.695]
ζ_p	Beta	—	0.1	0.429 [0.342,0.513]	0.486 [0.365,0.634]	0.531 [0.394,0.691]
α_π	Gamma	1.5	0.3	1.372 [1.088,1.678]	1.308 [0.908,1.671]	1.273 [0.881,1.662]
α_y	Gamma	0.125	0.1	— [—,—]	— [—,—]	— [—,—]
α_{dy}	Gamma	0.125	0.1	0.171 [0.047,0.282]	0.203 [0.057,0.360]	0.216 [0.057,0.354]
ρ_R	Beta	0.6	0.2	0.428 [0.275,0.586]	0.507 [0.328,0.710]	0.534 [0.357,0.726]
\bar{A}	Normal	0.370	0.15	0.412 [0.196,0.614]	0.411 [0.212,0.621]	0.400 [0.182,0.644]
$\bar{\pi}$	Normal	0.985	0.75	1.118 [0.890,1.338]	1.152 [0.826,1.457]	1.144 [0.875,1.406]
\bar{R}	Gamma	1.597	0.25	1.456 [1.217,1.721]	1.492 [1.162,1.829]	1.487 [1.179,1.746]
ρ_b	Beta	0.5	0.2	0.865 [0.806,0.932]	0.740 [0.355,0.947]	0.715 [0.345,0.946]
ρ_A	Beta	0.5	0.2	0.243 [0.069,0.385]	0.372 [0.078,0.752]	0.378 [0.086,0.765]
ρ_r	Beta	0.5	0.2	0.498 [0.390,0.624]	0.491 [0.345,0.640]	0.492 [0.343,0.646]
σ_b	Inverse Gamma	0.5	4	0.900 [0.502,1.315]	0.889 [0.342,1.346]	0.897 [0.327,1.393]
σ_A	Inverse Gamma	0.5	4	1.769 [1.391,2.137]	1.563 [0.649,2.185]	1.672 [0.532,2.408]
σ_r	Inverse Gamma	0.5	4	0.314 [0.241,0.384]	0.295 [0.220,0.373]	0.285 [0.212,0.357]
σ_ζ	Inverse Gamma	0.5	4	0.596 [0.257,0.924]	0.470 [0.236,0.704]	0.445 [0.222,0.707]
M_b	Normal	0	1	-0.003 [-1.609,1.572]	0.012 [-1.295,1.502]	-0.109 [-1.574,1.462]
M_A	Normal	0	1	-0.057 [-1.674,1.561]	0.208 [-1.041,1.682]	-0.143 [-1.386,0.963]
M_r	Normal	0	1	-0.060 [-1.695,1.509]	0.125 [-1.351,1.517]	-0.035 [-1.325,0.998]
log p(X^T)				-144.4772	-146.7588	-146.8734
Prob(det)				0.9881	0.7079	0.6239

Notes: In each case above, the column references the prior mean of the Calvo parameter and for each case the prior standard deviation is set to 0.1. Numbers in square brackets indicate 90% confidence intervals.