Erratum to: Fundamentals News, Global Liquidity and Macroprudential Policy

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1 Erratum

We identified an unfortunate flaw in the computer algorithm that solves the social planner's problem of our 2016 JIE publication "Fundamentals News, Global Liquidity and Macroprudential Policy." This erratum describes the details of this flaw and provides a link to the JIE's replication repository, where the corrected codes and a PDF document with the updated results are available. The model calibration and the decentralized equilibrium solutions are unaffected by this flaw. Only the results involving the social planner's solution changed and the changes strengthened the findings of the paper. In particular, the optimal policy is even more effective at reducing the magnitude of Sudden Stops when they occur and the frequency of occurrence is reduced to almost zero.

The flaw in the original code involved one of the terms related to the pecuniary externality that appears in the planner's Euler equation for bonds. Specifically, the expression for the Lagrange multiplier on the borrowing constraint is given by

$$\mu_t = \frac{u_T(t) - \frac{\beta}{q_t}\mathbb{E}_t\left[u_T(t+1) + \mu_{t+1}\psi_{t+1}\right]}{1-\psi_t} \tag{1}$$

The code uses this expression updated one period to evaluate the marginal benefit from borrowing for the planner, as can be seen in eq. (22) in the paper. Unfortunately, the denominator $1-\psi_t$ in (1) was missing in the original code, resulting in a lower Lagrange multiplier and externality term than in the correct solution.

The files provided in the repository website of the JIE (located at **https://???**) include the updated Matlab code, a handout describing in detail the solution method, and a PDF document with the updated tables and charts of the paper showing the correct results. The same files are also available at the following link

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Table 2: Baseline Model Moments

Long-run Moments	(1) DE	(2) SP
$E[B/Y]$ %	-29.62	-28.89
$\sigma(CA/Y)$ %	3.18	1.75
Welfare Gain [1] %	n/a	0.12
Prob of Crisis [2] %	3.51	0.01
Financial Crisis Moments		
ΔC%	-14.39	-4.68
ΔRER%	-45.55	-12.65
$\Delta CA/Y$%	13.47	1.57
Ω^C [3]	4.63	1.49
Ω^{RER}	5.61	1.54
$\Omega^{CA/Y}$ %	13.37	1.70
$E[\tau]$ pre-crisis [4] %	n/a	9.22
Switch from R_l to R_h		
ΔC%	-15.49	-4.57
ΔRER %	-49.93	-12.32
$\Delta CA/Y$ %	14.65	1.17
$E[\tau]$ pre-crisis %	n/a	10.21

[1] Welfare gains are computed as compensating variations in consumption constant across dates and states that equate welfare in the DE and SP. The welfare gain W at state (b,z) is given by $(1 + W(b,z))^{1-\sigma} V^{DE}(b,z) = V^{SP}(b,z)$. The long-run average is computed using the ergodic distribution of the DE.

[2] A financial crisis is defined as a period in which the constraint binds and the current account (CA/Y) raises by more than two standard deviations in the ergodic distribution of the decentralized economy, i.e. when (CA/Y) is larger than 6.4 percent.

[3] The values of Ω are financial amplification coefficients, which are ratios of the average impact effects displayed by each variable in financial crises states over the average impact effects that shocks of the same magnitude produce in non-crises states.

[4] Average τ in the periods before financial crises.

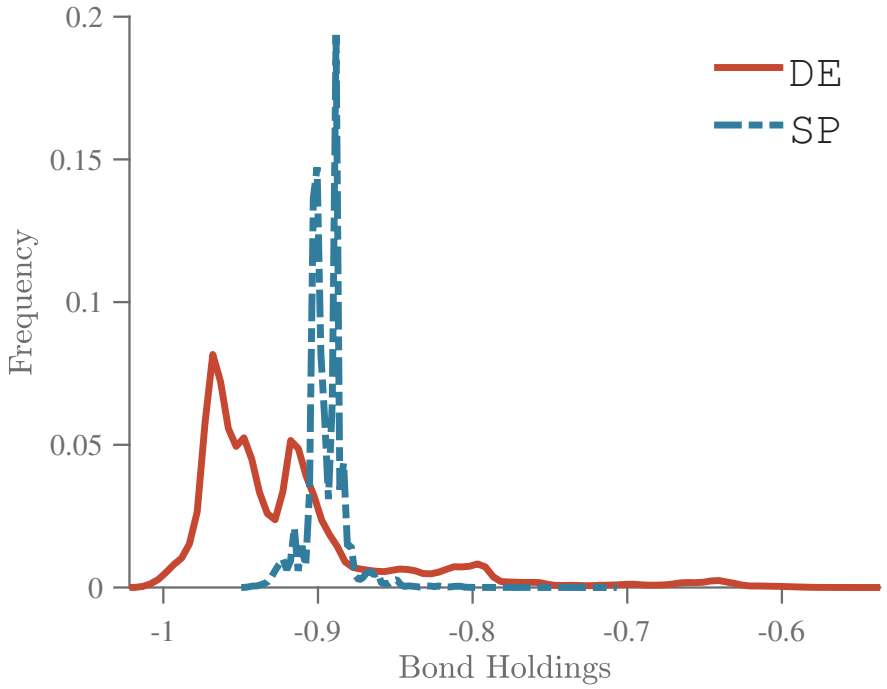

Figure 2: Ergodic Distributions of Bond Holdings

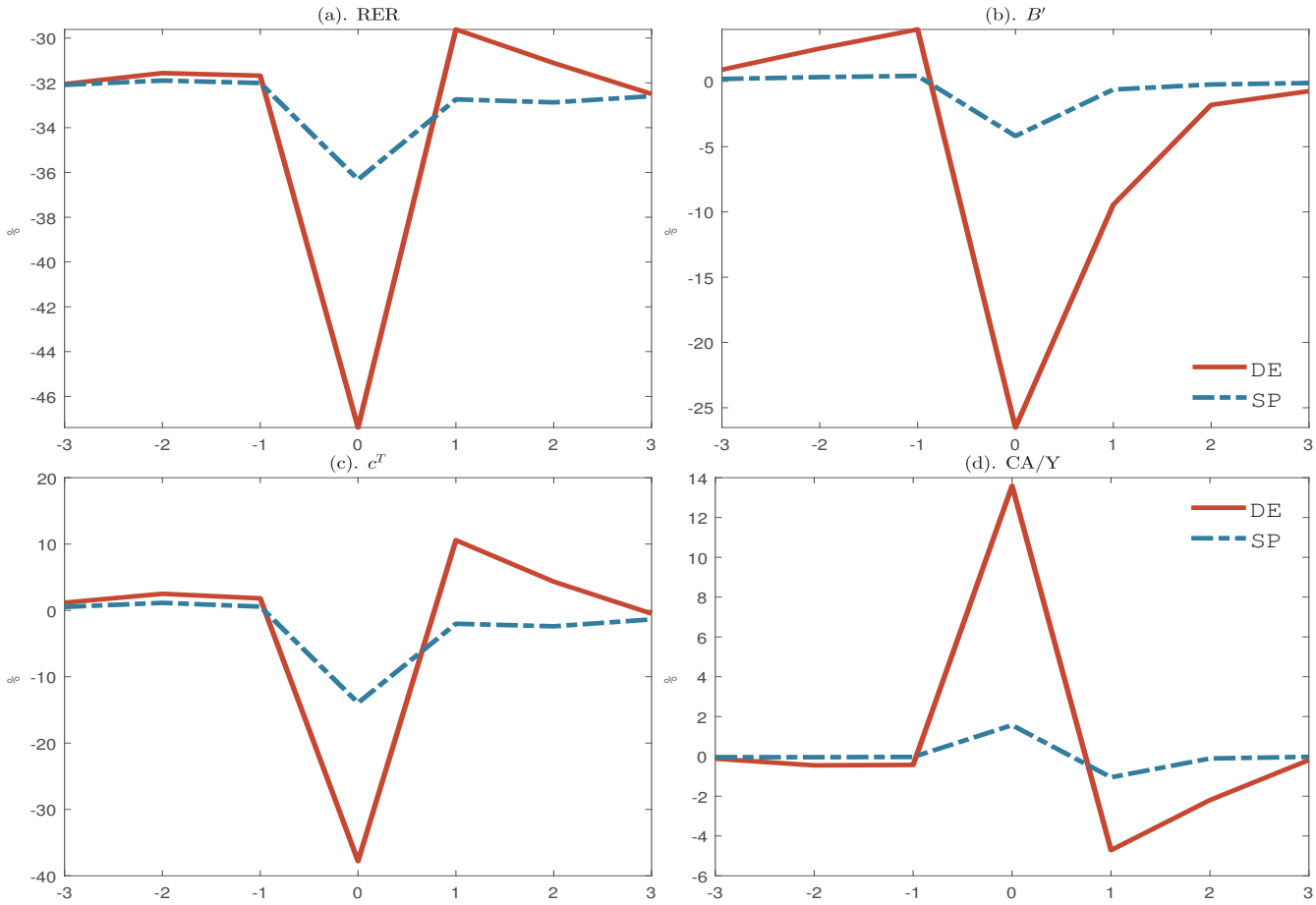

Figure 3: Baseline DE vs SP around Crisis (Deviation from Mean)

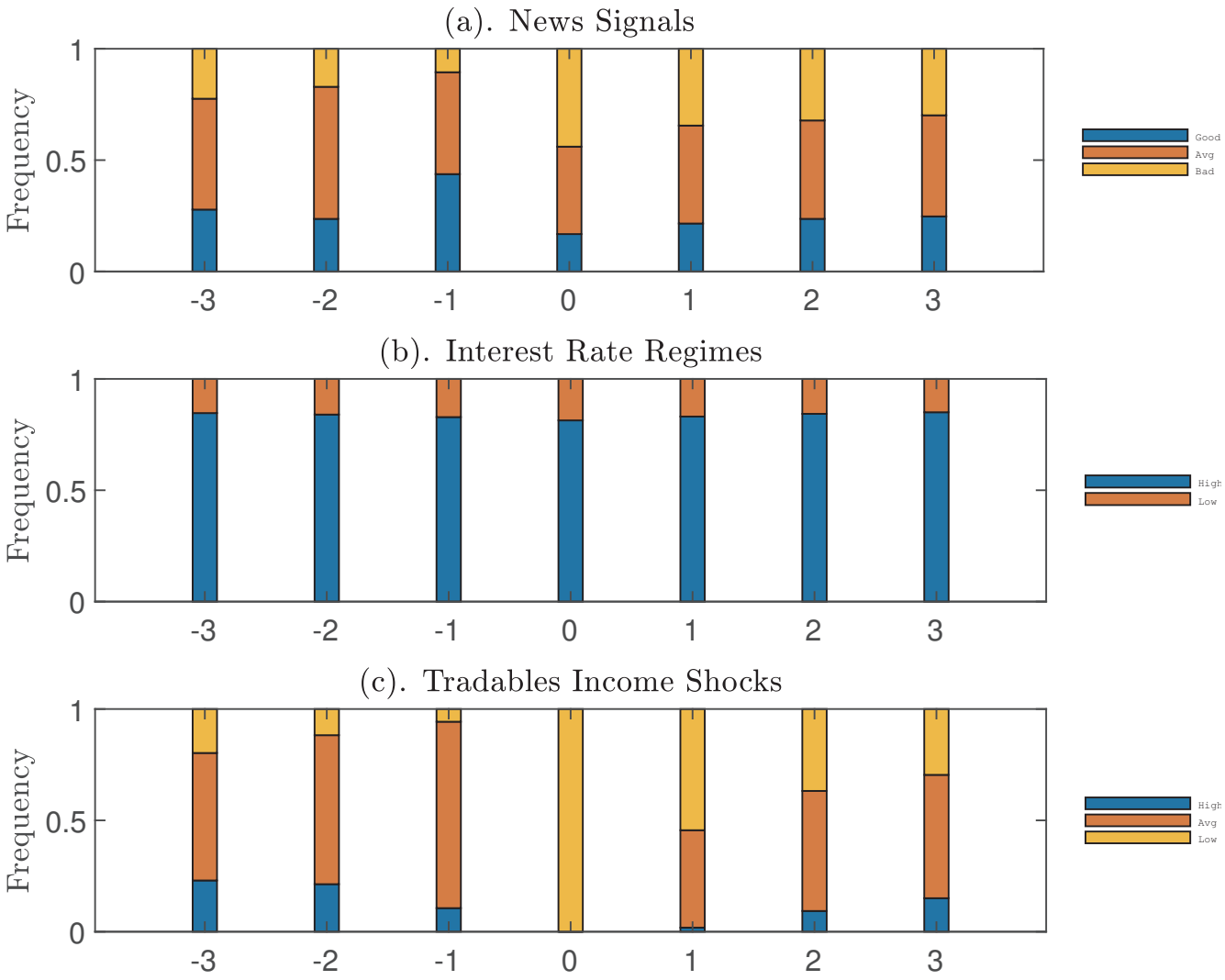

Figure 4: Baseline Exogenous States around Crisis

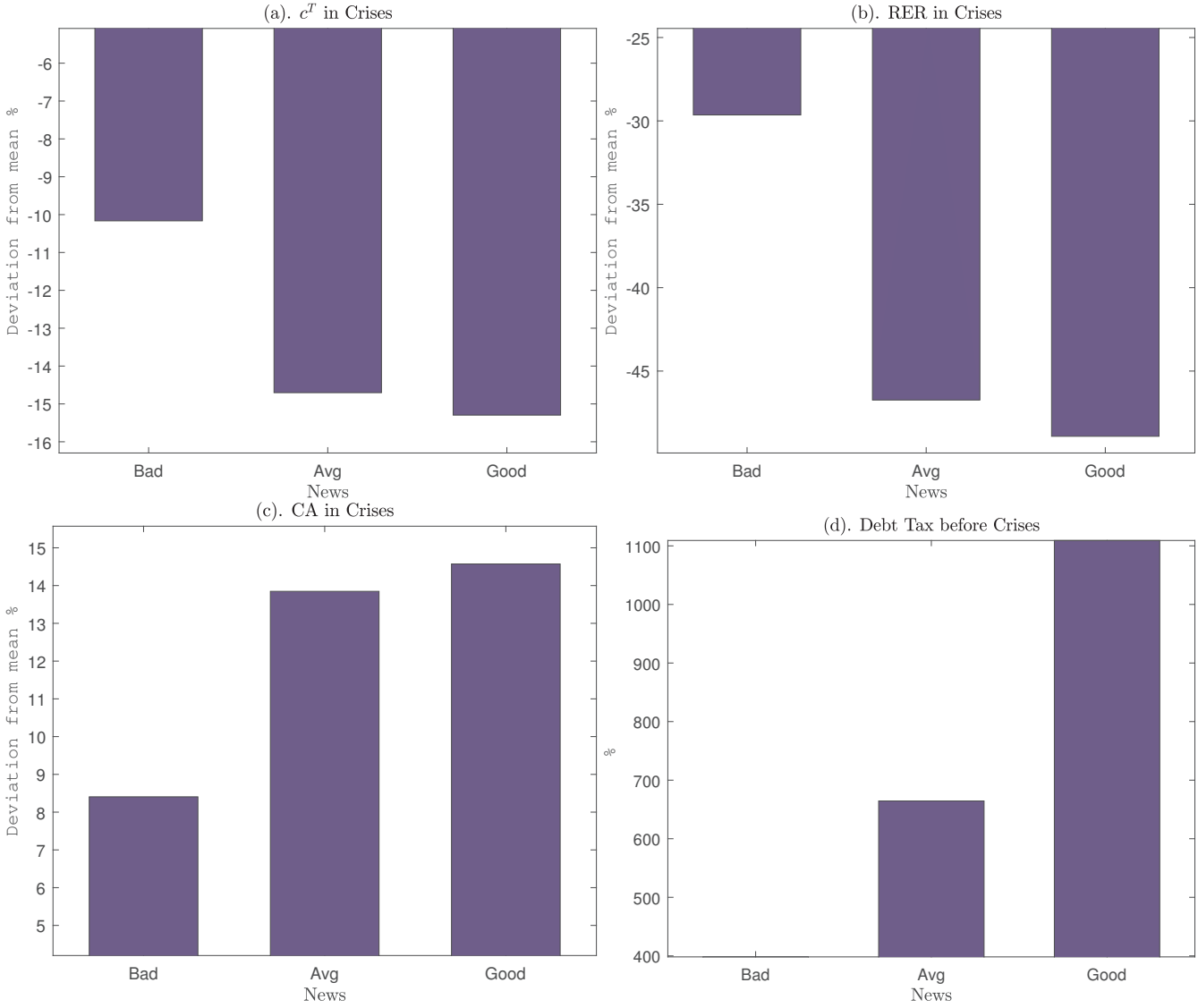

Figure 5: Breakdown of Crises Effects and Optimal Tax across News Signals at t-1

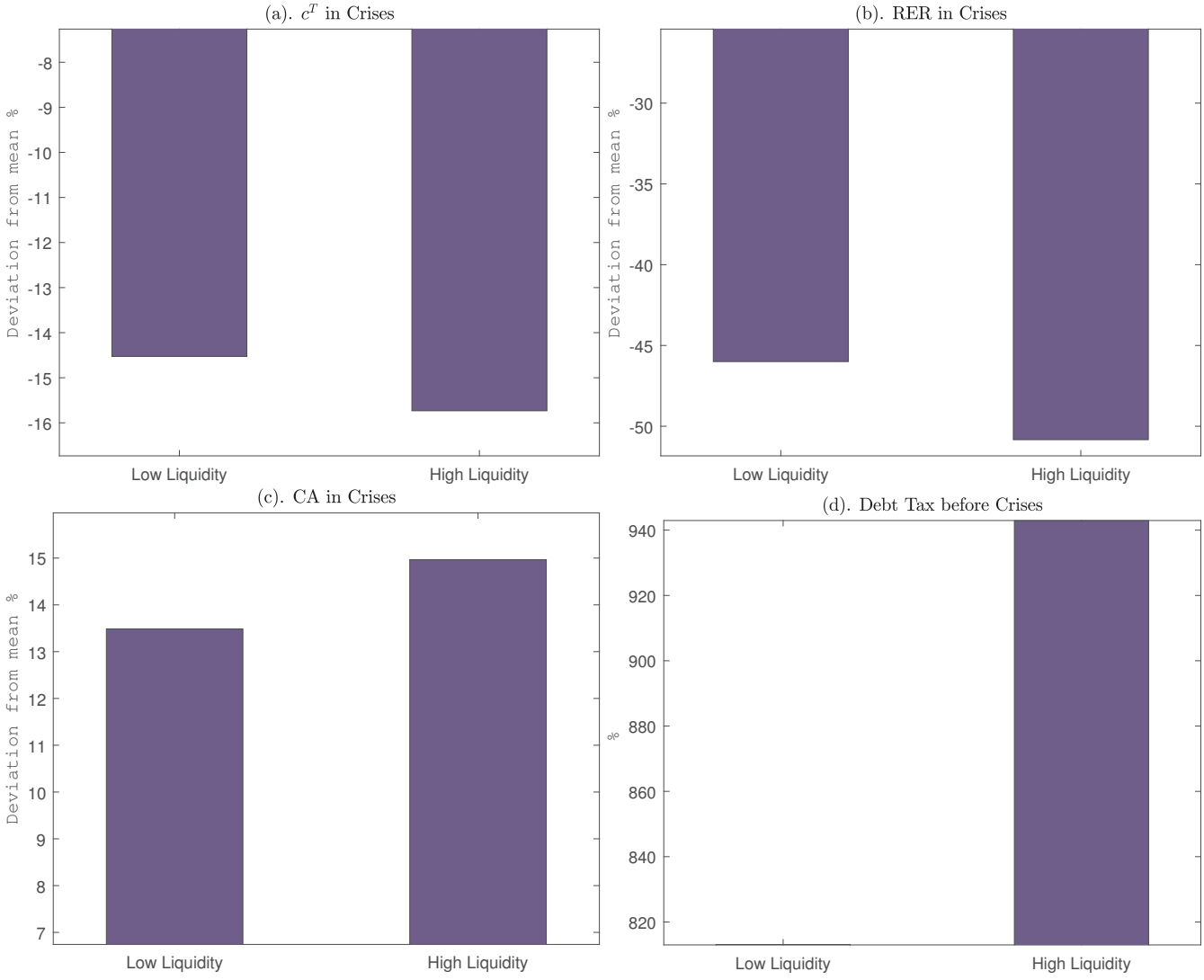

Figure 6: Breakdown of Crises Effects and Optimal Tax across Liquidity Regimes

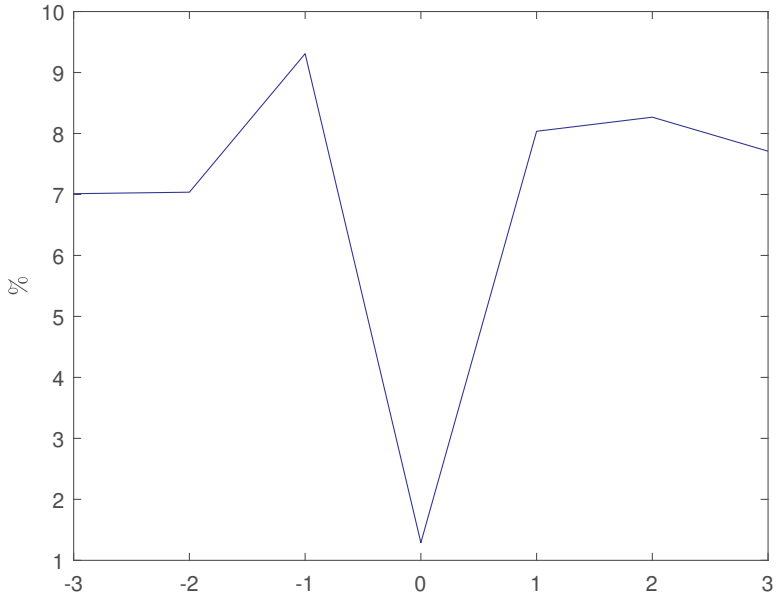

Figure 7: Optimal Debt Tax around Crises

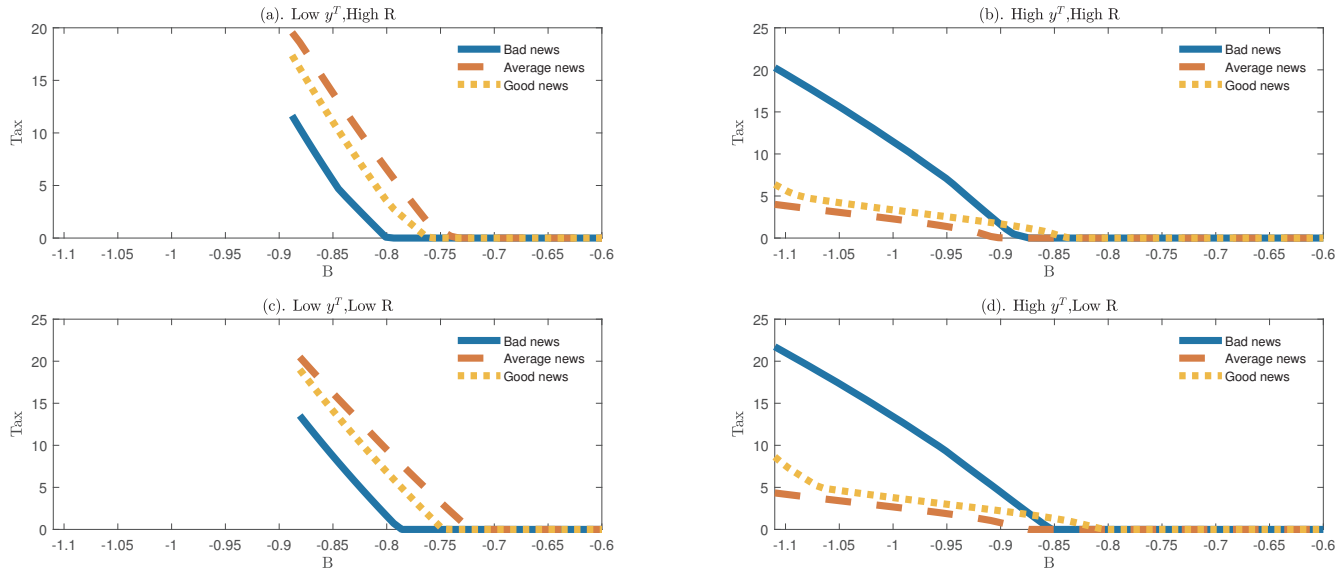

Figure 8: Baseline Debt Tax: Effect of News

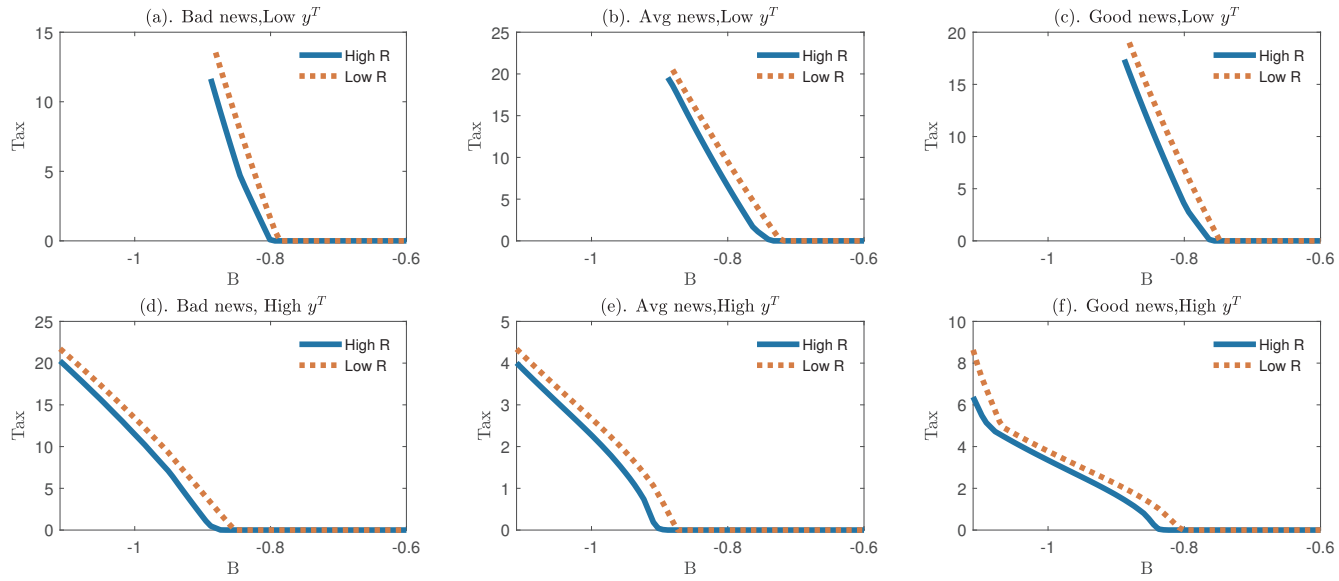

Figure 9: Baseline Debt Tax: Effect of Interest Rate Shifts