

TABLE 1—PRIOR DISTRIBUTIONS FOR DSGE MODEL PARAMETERS

Name	Range	Density	Mean	Standard deviation	90-percent interval
$\psi_1$	$\mathbb{R}^+$	Gamma	1.10	0.50	[0.33, 1.85]
$\psi_2$	$\mathbb{R}^+$	Gamma	0.25	0.15	[0.06, 0.43]
$\rho_R$	[0, 1)	Beta	0.50	0.20	[0.18, 0.83]
$\pi^*$	$\mathbb{R}^+$	Gamma	4.00	2.00	[0.90, 6.91]
$r^*$	$\mathbb{R}^+$	Gamma	2.00	1.00	[0.49, 3.47]
$\kappa$	$\mathbb{R}^+$	Gamma	0.50	0.20	[0.18, 0.81]
$\tau^{-1}$	$\mathbb{R}^+$	Gamma	2.00	0.50	[1.16, 2.77]
$\rho_g$	[0, 1)	Beta	0.70	0.10	[0.54, 0.86]
$\rho_z$	[0, 1)	Beta	0.70	0.10	[0.54, 0.86]
$\rho_{gz}$	[-1, 1]	Normal	0.00	0.40	[-0.65, 0.65]
$M_{R\xi}$	$\mathbb{R}$	Normal	0.00	1.00	[-1.64, 1.64]
$M_{g\xi}$	$\mathbb{R}$	Normal	0.00	1.00	[-1.64, 1.64]
$M_{z\xi}$	$\mathbb{R}$	Normal	0.00	1.00	[-1.64, 1.64]
$\sigma_R$	$R^+$	Inverse Gamma	0.31	0.16	[0.13, 0.50]
$\sigma_g$	$R^+$	Inverse Gamma	0.38	0.20	[0.16, 0.60]
$\sigma_z$	$R^+$	Inverse Gamma	1.00	0.52	[0.42, 1.57]
$\sigma_\xi$	$R^+$	Inverse Gamma	0.25	0.13	[0.11, 0.40]

Notes: The Inverse Gamma priors are of the form  $p(\sigma|\nu, s) \propto \sigma^{-\nu-1} e^{-\nu s^2/2\sigma^2}$ , where  $\nu = 4$  and  $s$  equals 0.25, 0.3, 0.6, and 0.2, respectively. The prior for  $\rho_{gz}$  is truncated to ensure that the correlation lies between  $-1$  and  $1$ . We refer to the prior distribution in this Table as Prior 1. Prior 2 is obtained by imposing  $M_{R\xi} = M_{g\xi} = M_{z\xi} = 0$ , whereas Prior 3 imposes  $\sigma_\xi = 0$ .

The coefficients of the matrix  $\mathbf{M}$  that appear in the indeterminacy solution have standard normal distributions. Thus, our prior is centered at the baseline solution described in Section III. The prior for  $\mathbf{M}$ , and the parameters that characterize the distribution of the exogenous shocks are best assessed indirectly through their implications for the volatility of output, inflation, and interest rates. Our prior implies that the contribution of the monetary policy shock to output fluctuations lies between 0 and 18 percent. Supply and demand shocks  $\varepsilon_{a,t}$  and  $\varepsilon_{z,t}$  may explain as little as 1 or as much as 80 percent of the output variation. The sunspot shock  $\varepsilon_{\xi,t}$  plays hardly any role for output fluctuations but may cause up to 10 percent of the variation in inflation and nominal interest rates. According to our prior the standard deviation of inflation lies between 1 and 16 percent, which indicates that the prior for  $M$  assigns some mass in regions of the parameter space that imply a

large effect of fundamental shocks on price movements.

We refer to the prior distribution described in Table 1 as Prior 1. Prior 2 is obtained by imposing  $\mathbf{M} = 0$  and restricting the likelihood function in the indeterminacy region to the baseline solution described in Section III. A third prior imposes  $\sigma_\xi = 0$ , which means that there are no sunspot shocks under indeterminacy so that only the propagation of structural shocks is affected.

## B. Estimation Results

The DSGE models is estimated under Priors 1 to 3 for the three samples. We will first examine the probability mass assigned to the determinacy and indeterminacy region. According to the priors the probability of determinacy is 0.53. One advantage of our framework is that it lets us take into account the possible dependence