Corrigendum to
"Heterogeneous expectations in monetary DSGE models"

Domenico Massaro

The author regrets the following errors. In both Equations (A.3) and (A.4) in Appendix A, the term $\beta^{-1}\tilde{b}_{i,t-1}$ should be out of the infinite sum. Therefore, coefficient ζ_b in Equations (A.8) and (2.5) should be defined as

$$\zeta_b \equiv \frac{\eta\gamma(1-\beta)}{\beta\eta\gamma + \beta(\eta-1)\sigma}.$$

In Equation (2.11) the third ζ coefficient should be ζ_d instead of ζ_w. Equation (2.11) should then read as

$$\widehat{y}_t = \widetilde{E}_t \sum_{s=t}^{\infty} \beta^{s-t} \left((\gamma+\sigma)\left((1-\eta)\zeta_d + \zeta_w\right) + \zeta_d\right) \widehat{y}_s - \frac{\beta}{\sigma} \widetilde{E}_t \sum_{s=t}^{\infty} \beta^{s-t} \left(\widehat{R}_s - \widehat{\pi}_{s+1}\right).$$

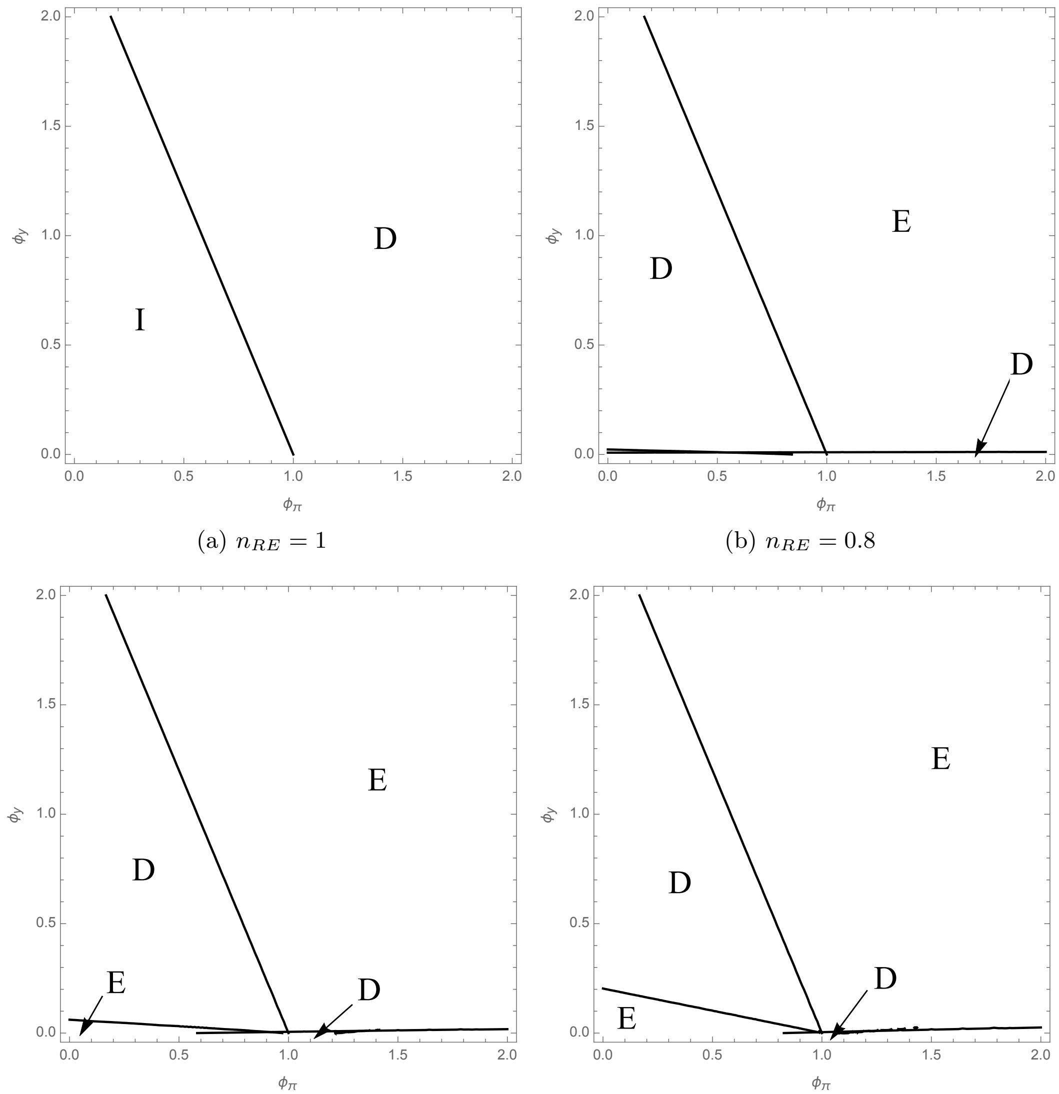
Equation (A.5) contains a mistake. The summation should go from t to $s-1$. The same applies to the second summation on the LHS of Equation (A.6) and to the second summation on the RHS of Equation (A.6). Therefore, the equation following (A.6) should read as

$$\widetilde{E}_{i,t} \sum_{s=t}^{\infty} \sum_{k=t}^{s-1} \beta^{s-t} \left(\widehat{R}_k - \widehat{\pi}_{k+1}\right) = \widetilde{E}_{i,t} \sum_{s=t}^{\infty} \beta^{s-t} \frac{\beta}{1-\beta} \left(\widehat{R}_s - \widehat{\pi}_{s+1}\right).$$

Finally, in the definition of the coefficient $\gamma_{\pi y}$ the second term in the sum between brackets should be multiplied by k. The correct expression for $\gamma_{\pi y}$ is therefore

$$\gamma_{\pi y} = \Omega_\pi \left(-n_{RE}k + \frac{\omega\beta(1-n_{RE})k}{1-\omega\beta}\right).$$

This error affects Fig.1. Corrected Fig. 1 is given below. Parameters' regions ensuring determinacy under homogeneous rational expectations may result in explosive dynamics in the presence of boundedly rational agents. Conversely, policy parameters leading to indeterminacy under homogeneous rational expectations may result in a determinate equilibrium in the presence of boundedly rational agents. The mechanism ensuring determinacy under rational expectations lies at the core of this result. By obeying the Taylor principle the monetary authority induces dynamics that will explode in any equilibrium but one.



(a) $n_{RE} = 1$ (b) $n_{RE} = 0.8$

(c) $n_{RE} = 0.6$ (d) $n_{RE} = 0.4$

Figure 1: Determinacy properties for different values of the fraction n_{RE}.
D denotes determinacy, **I** denotes indeterminacy, and **E** denotes explosiveness.
(a): RE benchmark, $n_{RE} = 1$, **(b):** Gali and Gertler (1999) (upper bound), $n_{RE} = 0.8$, **(c):** Gali and Gertler (1999) (lower bound), $n_{RE} = 0.6$, **(d):** Pfajfar and Zakelj (2010), $n_{RE} = 0.4$.

However the presence of boundedly rational agents introduces backward-looking components in the dynamics of the model, which implies that parameters' regions that ensured unstable eigenvalues and thus determinate equilibrium in a completely forward-looking model, may now induce unstable dynamics.