

Corrigendum

Corrigendum to ‘Informative trading or just costly noise? An analysis of Central Bank interventions’

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This Corrigendum corrects a portion of the robustness Section 3.3 in Pasquariello (2007), where there is a typo in Eqs. (3) and (4), and Figure 4 does not plot the ensuing cumulative impulse-response functions, as instead discussed in its last two paragraphs (pp. 130-131).

1 Typos in Section 3.3 and Figure 4

Differently from the discussion in Section 3.3, Figures 4a and 4c to 4f on p. 132 plot cumulative sums of the coefficients b_l (up to $\sum_{l=0}^{20} b_l$) for a signed \$50 million SNB intervention at $t = 0$ ($\Delta T_0 = 50$) from the SUR estimation of

$$X_t = \alpha_1 + \sum_{l=1}^{20} a_l X_{t-l} + \sum_{l=0}^{20} b_l T_{t-l} + \sum_{i=1}^4 \psi_{1,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{1,k} Y_t(k) + \varepsilon_{1,t}, \quad (3)$$

while Figure 4b on p. 132 plots cumulative sums of the coefficients d_l (up to $\sum_{l=0}^{20} d_l$) for a signed 1% CHFUSD return shock at $t = 0$ ($\Delta X_0 = 0.01$) from the SUR estimation of:

$$T_t = \alpha_2 + \sum_{l=1}^{20} c_l T_{t-l} + \sum_{l=0}^{20} d_l X_{t-l} + \sum_{i=1}^4 \psi_{2,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{2,k} Y_t(k) + \varepsilon_{2,t}. \quad (4)$$

Thus, Figures 4a and 4c to 4f on p. 132 capture the permanent impact of a signed \$50 million SNB intervention on Y_t (i.e., the portion of that impact more likely due to information effects than

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to inventory control; e.g., see Hasbrouck, 1991) under the assumption that such intervention is exogenous and fully unanticipated — consistent with the plots of cumulative sums of the coefficients δ_j of unsigned daily intervention dummies $I_t(j, h)$ from the OLS estimation of Eq. (2), in Figures 2 and 3 — while Figure 4b on p. 132 captures the permanent impact of a signed 1% shock to CHFUSD returns on SNB intervention T_t under the assumption that such shock is exogenous and fully unanticipated.

Instead, the bivariate VAR described in Section 3.3 is identified with the restriction of not allowing Y_t to have a contemporaneous impact on signed aggregate daily SNB trades T_t (under the assumption, common in the microstructure literature, that trades cause price changes, as in Hasbrouck, 1991), i.e., is given by Eq. (3'), where T_t should be replaced by T_{t-l} in Eq. (3) as follows:

$$X_t = \alpha_1 + \sum_{l=1}^{20} a_l X_{t-l} + \sum_{l=0}^{20} b_l T_{t-l} + \sum_{i=1}^4 \psi_{1,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{1,k} Y_t(k) + \varepsilon_{1,t}, \quad (3')$$

and Eq. (4'), where $\sum_{l=0}^{20} d_l X_t$ should be replaced by $\sum_{l=1}^{20} d_l X_{t-l}$ in Eq. (4) as follows:

$$T_t = \alpha_2 + \sum_{l=1}^{20} c_l T_{t-l} + \sum_{l=1}^{20} d_l X_{t-l} + \sum_{i=1}^4 \psi_{2,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{2,k} Y_t(k) + \varepsilon_{2,t}. \quad (4')$$

The attached Corrected Figure 4 — which replaces Figure 4 on p. 132 — plots the cumulative impulse-response functions from the OLS estimation of the bivariate VAR of Eqs. (3') and (4'). Specifically, Figures 4a and 4c to 4f below plot the cumulative response of Y_t to a signed \$50 million shock to the unanticipated component of SNB intervention at $t = 0$ from its linear projection on past SNB trades and CHFUSD returns (i.e., from Eq. (4)). Figure 4b below plots the cumulative response of T_t to a signed 1% shock to the unanticipated component of CHFUSD returns at $t = 0$ from its linear projection on past SNB trades and CHFUSD returns (i.e., from Eq. (3')). These plots are generally similar to those on p. 132 as both Figures 1 and 4b and the untabulated estimation of Eq. (4') suggest that linear projection to be a generally poor predictor of current SNB interventions.

References

Hasbrouck, J., 1991. Measuring the information content of stock trades. *Journal of Finance* 46, 179–207.

Pasquariello, P., 1997. Informative trading or just costly noise? An analysis of Central Bank interventions. *Journal of Financial Markets* 10, 107–143.

Corrected Figure 4. Bivariate VAR: impulse-response functions

These figures plot OLS estimates of the cumulative revisions in X_t subsequent to an initial USD 50 million *signed* SNB trade $T_t = I_t > 0, I_t < 0, C_t$, or $I_t^\& + C_t^\& > 0$ ($\Delta T_0 = 50$) implied by the bivariate VAR model

$$X_t = \alpha_1 + \sum_{l=1}^{20} a_l X_{t-l} + \sum_{l=0}^{20} b_l T_{t-l} + \sum_{i=1}^4 \psi_{1,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{1,k} Y_t(k) + \varepsilon_{1,t}, \quad (3')$$

$$T_t = \alpha_2 + \sum_{l=1}^{20} c_l T_{t-l} + \sum_{l=1}^{20} d_l X_{t-l} + \sum_{i=1}^4 \psi_{2,i} D_t(i) + \sum_{k=1986}^{1997} \vartheta_{2,k} Y_t(k) + \varepsilon_{2,t}, \quad (4')$$

for each variable X_t defined in Section 2.2. Specifically, Figures 4a and 4b plot estimated cumulative impulse-response functions for both $X_t = r_t$ and T_t (for a *signed* 1% shock to r_t , ($\Delta r_0 = 0.01$) while Figures 4c to 4f plot estimated cumulative impulse-response functions for X_t from each bivariate VAR model with either $X_t = r_t^2, S_t, s_t$, or f_t , respectively.

