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A money demand system for euro area M3

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Abstract

In order to assess the importance of monetary and financial developments for key macroeconomic variables in the euro area a money demand system for M3 is estimated adopting a structural cointegrating VAR approach. While maintaining a good statistical representation of the data, long-run relationships are based on economic theory. By using generalized response profiles the dynamics of the money demand system is investigated without any further identifying assumptions. Error bounds of the profiles are derived using bootstrap simulations.

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Notes

[1] The main components of M3 are currency in circulation and overnight deposits (M1), other short-term deposits (M2-M1: deposits with an agreed maturity of up to two years; deposits redeemable at notice up to three months) and marketable instruments (M3-M2: repurchase agreements; debt securities issued with a maturity of up to two years; money market fund shares/units and money market paper).

[2] The own rate series used in figs. 1–3 was constructed from German, French, Italian, Spanish and Dutch interest rates aggregated using ECU conversion rates. In terms of GDP ratios, these data capture more than 80% of the euro area.

[3] In order to save space the results are not presented here. They are available from the authors upon request.

[4] In the estimation π_t is used instead of π_{t+1}.

[5] The estimation and testing of the model was carried out in PCFiml 9.0 (Doornik and Hendry (1997)).

[6] The VECM has two lags selected by standard information criteria like Akaike's information criterion.

[7] Note that the second cointegrating vector is normalized in π_t and not in l_t as in Equation 3. Thus the coefficient displayed in the table is $1/\phi$.

[8] The rejection of homogeneity in the Fisher relation may also be due to ‘peso problems’, that is, systematic overprediction of inflation by market participants. Another reason could be a time-varying risk premium which could be dependent on the level or on the variability of inflation. A comparison and assessment of these competing explanations is, however, beyond the scope of this paper.

[9] According to tests of overidentifying restrictions the parsimonious representation is not rejected by the data.

[10] The operator $\text{diag}^{-1}(\beta'\Sigma\beta)$ is writing the diagonal elements of $(\beta'\Sigma\beta)$ into a diagonal matrix of the same dimension and $(\cdot)^{-1/2}$ refers to an element-wise operations.
