

# Empirical tests of exchange rate and stock return models

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## Abstracts

### Order flow in the Foreign Exchange Market

Price discovery in foreign exchange markets is explored using Swedish data including trades from both the customer and the interdealer market. The data set represents a majority of all executed trades in the EURSEK exchange rate over a four-year time period. I confirm the presence of an association between interdealer order flows and exchange rate returns on a daily and weekly frequency. At longer horizons the association disappears. Aggregate interdealer order flow appears to be informed, pushing and driving changes in the EURSEK rate. In contrast, both corporate and financial customers seem to react negatively to a price change and get pulled into the market, reacting to previous trade events.

**Keywords:** Foreign exchange microstructure; price discovery; private information

**JEL codes:** F3, F4, G1

### Herding the Scapegoats: Foreign Exchange Order Flow and the Time-Varying Effect of Fundamentals

The poor performance of macroeconomic exchange rate models in and out-of-sample is well documented in the literature. One reason for this result is the impact of ‘scapegoat’ effects; participants attach different weights to different macro fundamentals in different periods. In contrast, microstructure approaches to exchange rate determination demonstrate the importance of order flow to both explain and forecast exchange rates. Using monthly data sets for order flow and macro ‘fundamentals’ for the five currency pairs (\$/€, ¥/\$, \$/£, NOK/€ and SEK/€) we find evidence supporting scapegoat effects. In particular, (i) the instability in the returns-fundamentals relation is matched by a similar instability in the relation between order flow and fundamentals; and (ii) the predicted order flow from the time-varying relation with fundamentals (macro-induced order flow) has strong explanatory power for spot returns. We conclude that the consistent and more stable impact of order flow, in part, comes from the fact that it absorbs and acts as a sufficient statistic for scapegoat effects.

**Keywords:** Foreign exchange microstructure; unstable fundamentals; scapegoat theory.

**JEL codes:** F31, F41, G15

### Commercial Banks' Assets and Future Expected Returns

Using in-sample and out-of-sample tests and controlling for data mining, we find that the asset growth of commercial banks strongly predicts the excess returns on stocks, bonds, derivatives, and currencies portfolios. The bank asset factor strongly predicts market excess returns even at a weekly frequency. We find clear patterns across assets in the predictive coefficients: they increase in magnitude from government to corporate bonds to options to stocks. This pattern is consistent with the business risks of the assets, and thus supports a risk-based explanation of the predictive power of commercial banks' asset growth. We also find that the bank asset factor possesses strong explanatory power for the cross-section of expected asset returns, which backs up the results of the predictability tests.

**Keywords:** Return predictability; data mining; banks' balance sheets; leverage

**JEL codes:** C10, C13, G12, G21

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