

Referee Report on “A Financially Stressed Euro Area” (Marcus Kappler and Frauke Schleer)

June 4, 2016

Summary

This paper analyzes a set of financial sector time series during the period 2000-2012 that are associated with the banking sector (Money/interbank market, credit conditions/constraints, balance sheet characteristics and bank's profitability), the securities market and the FX market (Returns/spreads and volatility). With the aid of a dynamic factor model they extract 10 orthogonal factors from these time series that can be interpreted as "financial condition indicators" and which explain the bulk of variation in the time series. In addition, the factors are rotated such that their correlation with real economic activity (GDP) is maximized. In an exploratory analysis where the authors regress the financial series on each factor they find the first factor to be strongly related with banking sector variables, especially those from the euro area periphery countries. That is why they label the first factor a "Periphery Banking Crisis" factor. The second factor strongly loads on uncertainty measures like share price volatility and therefore is labeled as a "Stress factor". Finally, the third factor is identified as a "Yield Curve" factor since it explains large part of the term spreads.

Contribution

Although the methods of aggregating financial series are sophisticated (including finance theory) most studies summarize financial series to one representative statistic by using standard descriptive methods (e.g. the financial stress index (FSI) by the IMF). Other methods which result in more than one summary measure are relatively scarce. Hence, one result of this paper is that it shows to what extent and how financial series comove with each other if different categories of "financial stress" are allowed for. In addition, the authors amplify the regular set of price variables by variables comprising financial volumes. The paper shows that the factors have different explanatory power for other variables of interest. Whereas the first factor is more associated with economic

sentiments (which supposedly has deteriorated due to the sovereign debt crisis in the euro area periphery) than with industrial production the reverse holds for the second factor. We infer from this result that one single summary measure is not enough for representing the financial market. This parallels another result of the paper that including more than one factor improves the forecasts of industrial production using VAR models.

To sum up, the stress index is a structurally differentiated measure for tracking financial conditions and forecasting real activity and therefore is a useful additional statistic for policymakers and research institutions.

Discussion

I would suggest to extend the set of 21 financial series to a larger set of variables. Since the estimated factors are used as regressors to extract their explanatory shares for each series the issue of generated regressors naturally arises. However, the problem can be solved because for large N the estimates become more exact and the estimates can be treated as real regressors (this, however, is not a problem if we are interested in forecasting). I would suggest to include "financialized" goods such as commodity prices and series from the derivatives market, among others. These variables would make the indicator more representative for the entire financial sector and presumably would further improve the forecasting performance.

Since the focus of this paper is to construct a financial stress index that is informative for the European financial market I would suggest to stronger isolate the factors from non-financial and global effects. European financial variables are influenced by international influences such as US monetary policy shocks or global demand shocks, so the index does not only contain "domestic" but also "foreign" stress. For a monetary policymaker, however, it would be insightful to know which stress is idiosyncratic to domestic financial markets and which is not. One way to do that would be to orthogonalize the factors from a set of global proxy variables.