REFEREE REPORT ON:

"Credit Conditions Indices: Controlling for Regime Shifts in the Norwegian Credit Market"

SUMMARY

The Paper uses quarterly data on "total" and "secured" stocks of household debt in Norway in the period 1975-2009 in order to provide an estimate of the "common structural trend" (ST) in Norwegian credit market. The estimated ST is a weighted combination of a number of step dummies (referred to years), an ordinary dummy and an economic variable. The authors argue that their estimated ST can be interpreted as a credit conditions index (CCI).

GENERAL COMMENTS

The Paper deals with an interesting issue. Nevertheless, the background has to be clarified; and the empirical analysis to be substantially improved.

MAIN POINTS

1. Unclear background

My impression is that there are some misleading phases.

a. A credit condition index (CCI) is a measure of credit availability. Therefore, it should reflect the position of the supply function of credit. This means that it captures the process of deregulation, but also any other change on the supply side of the credit market, which are institutional and not. To exemplify, a CCI is affected by: (i) the credit market regulation and supervision; (ii) the effect of market discipline on bank capital and liquidity conditions; (iii) the risk aversion of intermediaries; etc.
The authors seem not to be fully aware of this as they emphasize (as from the abstract) the role of "regulation", "institutional changes", "regulatory changes", while they seem to disregard the other determinants.

b. The Paper would construct a CCI only for households, but it said to be referred to the whole credit market.

2. Empirical analysis

a. A CCI should be free of the effect of the economic environment to solve endogeneity problems. In order to take into account the effects of the economic environment, a method is the inclusion of a large set of economic controls. On the contrary, the authors use only a few variables. In particular, since a CCI should reflect the position of the supply function of credit, it is necessary to control for variations in credit demand. And, to this purpose, the unavoidable variable should be a risk measure, which is absent in the paper.

b. The empirical analysis is based on a large number of assumptions, *ad hoc* hypotheses and simplifications. For example:

- The authors assume that "secured debt" is purely supply determined.
- Most of the dependent and independent variables are assumed to be integrated of order one.
- The relationships between dependent variables, regressors and ST are assumed to be cointegrated.
- The specification is chosen to contain little dynamics.
- The estimation of the ST contains a number of bounds to allow the authors to *incorporate some of the qualitative information* they have on the development of the Norwegian system.

Some of these assumptions are not corroborated by the data and signs of misspecifications arise. For example:
- "ADF-tests of the error correction terms fail to detect stationarity"
- "normality is rejected"
- "there are clear signs of instability in Figure 7...[...] ... It is somewhat difficult to know how to handle this instability - intuitively one would want ST to capture all regime shift effects. It is possible that the lack of interaction between ST and other variables prevents the model from doing so"

This presence of a large number of assumptions and signs of misspecification would be a problem in any circumstance. However, it is made more serious by the fact that authors claim that their estimate of the ST can be interpreted as a CCI just because it fits nicely with the qualitative development observed in Norway (which had been used previously to impose restrictions). The authors say:

"Still, we would like to stress that in our preferred vocabulary what we estimate is a flexible, common trend, not a measure of credit conditions. However, if the joint trend of our variables seems to match historical accounts well, it can possibly be interpreted as measuring credit availability. To keep in line with the previous literature, we will therefore claim to have a measure of a Norwegian CCI if we can forcefully argue that the trend matches the "facts" as we see them".