Predicting the real economy wih financial variables

Bernt Arne Ødegaard

24 November 2021

1 Introduction

This lecture consider the general problem of using financial variables to predict the real economy.

Since, in theory, financial variables, such as stock prices, reflect expectations "immediately", one would think that financial variables should be good in terms of predicting what happens in the economy down the road.

Research using stock prices (or more generally asset prices) are however not particularly successful. Stock and Watson (2003) reviews much of this literature. It is not particularly optimistic, essentially saying that *some* asset prices predict *some* of the time, but there is instability in the predictive relation.

This lecture is not a survey of this literature, it is using it as a starting point to run empirical exercises.

We introduce some financial variable, and investigate whether it forecast "real" variables, such as output, inflation, employment, etc.

We start by looking at whether stock returns predict output (GDP).

Then we use stock volatility as an alternative predictive variable.

The particular example we look most at is the analysis in Næs, Skjeltorp, and Ødegaard (2011) and Skjeltorp and Ødegaard (2009).

We will do various similar exercises.

For one thing, we will run predictive regressions between measures of stock market liquidity and measures of real economic activity, using Norwegian data.

We will also look at the "forecasting problem", evaluating out of sample.

References

Randi Næs, Johannes A Skjeltorp, and Bernt Arne Ødegaard. Stock market liquidity and the Business Cycle. *Journal of Finance*, LXVI:139–176, February 2011.

Johannes Skjeltorp and Bernt Arne Ødegaard. The information content of market liquidity: An empirical analysis of liquidity at the Oslo Stock Exchange. Working Paper, Norges Bank (Central Bank of Norway), November 2009.

James H Stock and Mark W Watson. Forecasting output and inflation: The role of asset prices. *Journal of Economic Literature*, 41(3):788–829, September 2003.