

OUTSIDE READER'S REPORT ON "ESSAYS IN INTERNATIONAL BUSINESS CYCLE TRANSMISSION" BY BEKA LAMAZOSHVILI

This thesis deals with two sets of issues in the modeling of business cycle developments in small open economies. The first is the puzzlingly high degree of correlation between imports and exports ("positive comovements"), along with their high volatility ("trade volatility") and procyclicality, which have all been difficult to explain in standard macroeconomic models. The second is the apparent change in the impact of oil price changes, above all oil price increases, on macroeconomic variables. Contrary to the experience of the 1970's, in recent years, large run-ups in world market oil prices have not resulted in stagflation.

In the first chapter, the thesis proposes an answer to the import-export puzzle by including durable goods in a two-country New Keynesian Dynamic Stochastic General Equilibrium Model. The model is also extended to allow monetary policy to be covered. This creates the opportunity for interesting policy issues to be quantified.

In the second and third chapters, the thesis attacks the second set of questions. In Chapter two, it uses methods developed by Kilian (2009) to distinguish between types of oil price shocks (global demand, oil-market specific demand, and oil supply shocks) and then feeds these shocks into a NK DSGE model for the Republic of Georgia to identify transmission channels and policy responses. In Chapter three, the thesis specifies a Structural VAR model to study the impacts of global oil shocks of various types on the economies of Georgia and Armenia.

The model in Chapter one is motivated clearly and effectively. Including durable consumer goods as well as durable capital goods seems to be a reasonable step towards elaborating realistic models of international business cycle transmission. The results point in the direction expected. The model does roughly as good a job as the Engel-Wang (EW) model at reproducing the correlations between exports and imports and their volatilities, as shown in Table 1.1. Comovement in the model is actually somewhat too high, with a correlation coefficient of 0.558 between exports and imports compared to 0.194 in the data. This correlation is 0.421 in EW.

The baseline model of this thesis has the additional desirable feature of allowing for the standard response to monetary policy shocks found in the New Keynesian literature. Like EW, the model produces overly low volatilities of real exchange rates, only 0.558 compared to 2.432 in the data. This clearly is an issue that would need to be addressed in further research.

The models in Chapters two and three involve both identifying different sources of oil price shocks and modeling the transmission of these shocks to macroeconomic variables in Georgia and Armenia. I do not have major comments on the overall modeling approaches, which I believe are well-founded in recent literature. The results seem broadly plausible, and in line with work on economies of similar characteristic.

One issue that did catch my eye in Chapter three was the difficult task of quantifying the stance of monetary policy. I was left unsatisfied with the approach involving a combination of money supply and exchange rate variables. Certainly, the exchange rate is relevant in these small open economies. While the choice of which exchange rate to include is tricky, I do not have major concerns about the choice of the nominal US dollar exchange rate.

The money supply is another matter. Money supply is particularly suspect in this context for two reasons: 1) with high levels of dollarization, changes in the exchange rate trivially change monetary aggregates that include foreign currency liabilities. The author has gotten around this by focusing on M1 only, but is there a strong argument for believing that this is the most important monetary aggregate for the exercise at hand? 2) Ex-post measures of monetary aggregates may be affected by shifts in money demand and therefore be a poor indicator of policy stance.

The comments on page 85 of the dissertation suggest that there is no short-term interest rate that can be used as an indicator of the monetary policy stance over the whole period without a structural break. However, since the monetary policy frameworks in both countries did change to inflation targeting during the period, is it realistic to impose a common structure on the monetary response in the model? Would it be possible to include dummy variables to explicitly capture the monetary policy regime switch?

Understanding that this may be technically challenging, I would ask the author to reflect on the possibility of creating a meaningful interest rate series or a monetary conditions index rather than using the M1 data. If that is truly not feasible, a better explanation of the limitations of both the M1 aggregate as an indicator of policy stance and a clearer acknowledgement of the possibility that a monetary policy regime break did occur during the period would still seem to me to be required.

Subject to this one issue, and a need for careful editing (there are quite a few cases of duplicate words, apparently inappropriate terms and grammatical and typographical errors), in my judgement, this thesis satisfies the requirements for a PhD thesis in Economics. I recommend the thesis for defense.