GDN Regional Research Competition II

Economic Policy under a Quasi Currency Union   Non-Technical Summary

Monetary Transmission Mechanism in Lithuania

This first paper examines the transmission of monetary shocks to real and nominal economic macroeconomic variables. The monetary transmission mechanism considers various channels of transmission such as the interest rate, credit, exchange rate and equity price channels. Monetary transmission mechanism models first trace the effect of monetary policy on financial market conditions (interest rates, exchange rates) and then the effect of these on real variables such as gdp. Central and East European countries have experienced great structural changes in their economies and hence their monetary transmission mechanisms have also not been stable. Lithuania chose a currency board arrangement by which its exchange rate is fixed against a foreign currency and the central bank has enough of that currency on reserve to buy up all domestic currency if necessary. Within a currency board arrangement the central bank has very little room to pursue independent monetary policy. This environment modifies the monetary transmission mechanism in Lithuania by changing the relative importance of different transmitters. This paper looks more closely at the mechanism for Lithuania and in so doing contributes to the discussion of Lithuania's eventual participation in the euro single currency area.

Lithuania's central bank, the Bank of Lithuania, was reestablished in 1990. While remaining in the rouble zone Lithuania experienced high inflation, rising over 1000% in 1992. The Bank of Lithuania embarked on currency reform and re-introduced the pre-War national currency, the litas, in June 1993. From April 1994 Lithuania entered a currency board arrangement with the U.S. dollar at an exchange rate of 4 litas to one dollar. Banking crisis in 1995-96 led to plans to dismantle the currency board but these were abandoned in the wake of the world financial crises of 1997-98, and the currency board remained. Deviation from the tight one to one relationship between foreign reserves and the monetary base is possible in practice due to the fact that the Lithuanian government holds its deposits at the Bank of Lithuania mostly in foreign currency. The dynamics of foreign reserves and narrow monetary aggregates over the last ten years follow each other closely, however. The level of financial intermediation remains low, meanwhile, with the asset stock still equivalent to just over half of gdp by 2002. Differences in the structure of the real sector may also imply a different monetary transmission mechanism.

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The model is made up of long run and short run equations for interest rates, the exchange rate, aggregate supply, aggregate demand and other macroeconomic variables. The estimated model is then used to predict the effect of short and medium term increases in U.S. interest rates and appreciation of the litas. The results show, for example, that the interest rate shocks have bigger effects on gdp than the exchange rate shocks. Gdp returns to its long-run path faster in the case of exchange rate shocks. The effect on inflation is greater with exchange rate shocks than interest rate shocks.

Municipal Tax Abatement in a Centralised Transition State

This paper focuses on the one area of fiscal policy that appears outside the control of the national government. While Lithuanian municipalities are generally operating in what a World Bank study called a "fiscal straitjacket", they do seem to have some flexibility over reduction of property taxes. This reduction can be offered either to individual taxpayers or as a general reduction across the whole jurisdiction. Tax abatements are mostly given for the land lease charge (a type of rental charge to occupiers of government owned land that are waiting to have it privatized to them), the land tax and the real estate tax (only paid by legal persons). A survey of municipalities revealed a variety of reasons for giving abatements. These ranged from the traditional attempts to attract investment to the more unusual use of abatements as a type of welfare payment to poor farmers or compensation for fire or natural damage to property.

Empirical analysis of the causes of tax abatement examined both cross sectional data for 2001 and a panel of data from 1997, 1999 and 2000. The models were formulated in terms of per-capita abatement and abatement as a proportion of potential revenue. The explanatory variables included municipal level data on population, potential tax revenue, the number of business entities, a dummy for the existence of a department of economic development in the municipality, and the proportion of local council seats held by the largest party. The panel data model was estimated by a fixed effects least squares dummy variable approach, and dummies were added for years also.

Comparison of the cross-sectional per-capita model results with the panel data per-capita model reveals a few advantages of the use of panel data. The significantly negative effect of population in the cross-sectional model disappears when panel data is used. This suggests that the fixed effects of the structural differences between towns account for most of the variation that is attributed to the effect of population in the cross-sectional model. While the per-capita panel data is significant overall, none of the main explanatory variables are individually significant. The

model of tax abatement as a proportion of potential tax revenue gives slightly more encouraging results. Here the existence of a department of economic development in the municipality's administrative structure has a significantly negative effect on tax abatement in Lithuania. This confirms a result first found by Reese (1991). The size of this effect is also greater than the mean level of abatement in 2 of the 3 years of the panel. It suggests that a department of economic development can have a decisive effect on the existence of tax abatements in a municipality. It appears likely that economic development departments provide the municipality with more sophisticated policy options for attracting investment, such as business information services, that compete with the investment attractiveness motive for tax abatement and draw funds away from support from support for struggling businesses.

Incorrectly Specified Lags in Cointegrating Regressions

This paper tackles an important econometric issue in building the type of models that can trace the monetary transmission mechanism. The finite sample effects of incorrectly shifting the cointegrated variables in time are studied and the consequences for testing cointegration using the Dicker-Fuller test are discussed. It is shown that misspecifications create autocorrelated errors in the cointegrating equation that can be substantial even for small incorrect lag choices. The error dynamics due to lagged variables can be simply eliminated by shifting them in time, therefore the dynamics of the error term and associated biases in parameter estimates can be reduced. A simple test to detect incorrectly lagged cointegrated variables is proposed. The finite sample effect on the parameter estimates and the power of the Dicky-Fuller test when it is applied to test for stationarity of the cointegrating regression error is explored by Monte Carlo simulations. An empirical example of a potential lag shift in the cointegrating equation is discussed using Lithuanian export and investment data.