

Comment on “An Estimated SDGE
Model with Partial Dollarization: A
Bayesian Approach”
by Castillo et al.

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Summary

- The authors develop an SDGE model with partial dollarization and apply it on Peruvian data
- The model is a SOE in NK tradition
 - Real rigidities in consumption, capital accumulation and wages
 - Nominal rigidities in price setting a la Calvo
- But also parameterizes two forms of dollarization: payment and real dollarization
- Bayesian estimation to test for the presence of the two dollarization types
- Implication of the dollarization for the model economy behavior
 - Both dollarization types are important in explaining Peruvian data using the model
 - Both affect the monetary policy transmission by reducing the interest rate shock pass-through and increasing the ex rate pass-through

Summary

- One of the first attempts to assess the empirical implications of dollarization in SDGE framework designed to inform monetary policy
 - Use of Bayesian techniques, now industry standard in SDGE literature, in detecting for dollarization is also a value added of the paper
- Theoretical approaches explaining various forms of dollarization in the context of monetary policy making (Ize, 2005), also in a general equilibrium setting (Ize and Parrado, 2002)
- Most empirical literature on dollarization evaluates various competing theories using cross country evidence (de Nicolo et al, 2003, or Yeyati, 2005) or the consequences of dollarization for the macroeconomic management (e.g. Reinhart et al., 2003, Ize and Yeyati, 2005).

Comments

- The core value added of the paper is in using the insight of the SDGE framework to explain and empirically assess how dollarization affect model mechanisms and monetary policy transmission in Peru
 - This is very important not only for monetary policy conduct in Peru by providing more structure behind more ad-hoc approaches
 - But also for other countries modeling their transmission mechanisms in the context of dollarization

Comments

- Few suggestions for strengthening the core value
- In general, the authors may want to put their results more in the context of existing theories, cross-country evidence and also relate more to other empirical literature on Peruvian stylized facts
 - motivate their particular choice of dollarization types they investigate in Peru.
 - develop the paper further by including financial dollarization and endogenizing the price dollarization
 - spend more time showing the model consistent forces behind the dollarization in Peru and their interplay with monetary policy transmission mechanism

Choice of the dollarization types

- Some definitions on various forms of dollarization
- Payments dollarization – currency substitution (CS)
- Price (real) dollarization – using dollars in setting wages and prices (PD)
- Financial dollarization (FD) – using dollars to denominate assets and liabilities and financial claims between domestic agents
- Most literature tackles separately the issues of CS (Savastano, '96), and PD and FD (Ize and Parrado, '02)
 - Especially FD is very prominent in discussing monetary policy management in emerging market countries (e.g. Ize and Yeyati, 2005) also in the context of Peru (Armas and Grippa, 2005)

Choice of the dollarization types

- The authors implement CS and PD (in prices, not wages), but neglect FD
- There seems to be an ample evidence that the FD is the prevalent and key from monetary policy perspective in many countries – and perhaps also in Peru (Rossini, 2001, Armas and Grippa, 2005)
 - In fact, Ize and Parrado (2002) try to theoretically explain the co-existence of high FD and low PD
- It appears that PD, especially in wages, is virtually non-existent in Peru

Implementation

- CS is rather nicely introduced using complementarity between consumption and stocks of domestic and foreign money
 - Marginal utility of consumption depends on both domestic and foreign rates
 - Provides the grounds for IS curves with foreign interest rates (such as those used in the current projection model of the BCRP)
 - What about introducing fiscal cost/evasion as another determinant of the differences between the rate of return on the two currencies ?

Implementation

- The PD is modeled exogenously and only for price setting
 - A reasonable first step
 - Working in SDGE framework actually invites endogenizing the PD to explicitly investigate how the stochastic properties of the economy and its shocks affect dollarization and indeed the monetary policy
 - Ize and Parrado (2002) show this in a general equilibrium setting a la Obstfeld and Rogoff
 - Minimum variance portfolio seems to be a reasonable approach (with empirical support, de Nicolo et al, 2003)

Implementation

- The same holds true for the FD that is omitted from the paper
 - Macroeconomic uncertainty and monetary policy response to it is key to understand both FD and PD jointly
 - Relative volatility of inflation with respect to real exchange rate should correlate with both FD and RD
 - This is relevant for Peru, as its reaction function (both in the current projection model and the presented paper) smoothes out exchange rate fluctuations out of concerns for balance sheet effects (FD)
 - Specific nature of the IT regime should also affect the RD and FD by the way it reacts to different kind of shocks
 - The stochastic properties of domestic vs foreign shocks are an important determinant too
- One could also include a non-traded sector

Implications for monetary policy transmission

- Inclusion of both CS and PD affects the monetary transmission
 - The interest rate pass-through decreases with CS and PD
 - The pass-through of exchange rate increases with PD
- This accords with finding in dollarization literature, but the ex rate pass-through results do not accord with the available evidence on Peru
 - Ex rate pass-through is actually very small in Peru (one of the reasons being the low PD)

Implications for monetary policy transmission

- The authors analyze the structure of shocks and implied correlations and examine how sensitive they are to inclusion of PD and CS
- But could put their results in the perspective of the forces that should shape both FD and PD and how monetary policy reacts to them, e.g.
 - domestic vs foreign shocks, correlation between output and exchange rate (are depreciation contractionary), variability of inflation vs real exchange rate
 - The nature of monetary policy is an important factor of both RD and FD