Discussion of Andrés, Ortega, and Vallés

"Market Structure and Inflation Differentials in the European Monetary Union"

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Summary

Stylized fact:

Substantial dispersion in inflation rates within a monetary union (1 pp. in Euro).

Proposed (partial) explanation:

Differences in elasticities of substitution between goods across regions.

Modeling approach:

Calibrated micro-founded sticky-price model of a two-region monetary union.

Main Results:

Monetary policy shocks generate substantial, albeit very short-lived, dispersion in inflation rates. (Same for regional supply and demand shocks.)

Model

Labor only input into production (no capital)

All goods are traded, but region A's goods are fundamentally different from economy B's.

Preferences:

$$s_t \{(1-\sigma)^{-1} c_t^{1-\sigma} - \alpha^{-1} (y_t v_t)^{\alpha}\}$$

Consumption basket of types A and B goods

$$c = [\omega_A (c_A)^{\rho} + \omega_B (c_B)^{\rho}]^{1/\rho}$$

$$c_A = \int c_A(j)^{\theta/(\theta-1)} \qquad c_B = \int c_B(j)^{\theta^*/(\theta^*-1)}$$

Region A has lower markup (1.1) than region B (1.15); implies permanent price level differential of 4.5 percent.

Model (continued)

Quadratic adjustment costs to price changes

Transactions costs to inter-region borrowing

MP described by generalized Taylor rule

Model (continued)

Open-economy New Keynesian Phillips Curve

Inflation depends on expected inflation, domestic and foreign real marginal costs, and relative export prices.

Slope of the Phillips curve is increasing in the elasticity of demand (θ)

Nearly Standard New Keynesian IS Curve

Additional term for net foreign asset position

Experiments

Contractionary shock to common monetary policy yields some inflation dispersion with inflation rate in less "competitive" region falling by less. But, output responses nearly identical in two regions

"Demand" shock to preferences (s) in foreign country affects both demand and supply in that country

Preferences: $s_t \{(1-\sigma)^{-1} c_t^{1-\sigma} - \alpha^{-1} (y_t v_t)^{\alpha}\}$

"Supply" shock (v) affects labor supply

Both demand and supply shocks imply significant comovement in inflation between regions; demand shock yields some comovement in output.

Results robust to perturbations to various parameter values.

Extensions

One goal of monetary unions has been to stabilize inflation at a low rate. One price for this stability is a fixed exchange rate between regions, which can hinder stabilization.

This suggests two questions…

(1) How would economies perform under independent monetary policies?

(2) What are the welfare consequences of inflation dispersion in a monetary union?

What is the optimal monetary policy?

Is it biased in favor of less competitive region?

How well does a monetary policy rule that responds to only aggregate data do?