Discussion on 'Monetary Policy and Housing Prices in an Estimated DSGE Model for the US and the Euro Area' by Matthieu Darracq Pariès and Alessandro Notarpietro

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Monetary policy transmission mechanism in the euro area in its first 10 years
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Main findings

Housing shocks & the rest of the economy

Housing shocks are important to the rest of the economy in the short-run, but relatively unimportant in the long-run.

International spillovers are modest

due to the weak domestic link between residential sector and tradables sector.

Main findings...

FED cares house price inflation

according to the estimated augmented Taylor rule. Similar (in terms of share prices) findings are Lansing (2008) and Rigobon & Sack (2003)

Optimal monetary policy responds to the distortion generated by imperfect risk sharing

(of the borrowers) counter-acting the associated welfare losses even with cost of inflation volatility.

Agents

Patient households (savers)

Like in representative agent model. Save (also in capital), consume and work (in 2 sectors).

Impatient households (borrowers)

Borrow, consume and work (in 2 sectors). Binding borrowing constraint (LTV×houses as collateral).

Firms

1. Domestic intermediate goods producers combine capial and labour and compete imperfectly (Calvo pricing)
2. Their goods are either exported or combined with imported goods to produce final consumption and investment goods
3. Production of housing involves also land. No price rigidities.

More agents and incredients

Central bank

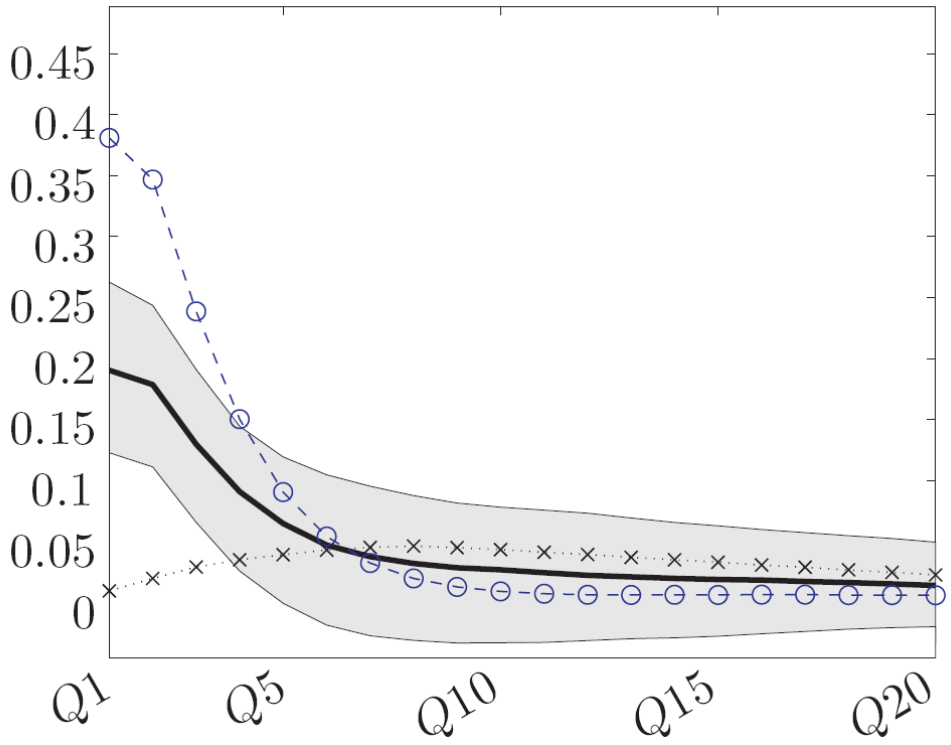
Sets interest rate using a Taylor-type rule (output growth).
Alternative rule augmented with real house price level.

Imperfect passthrough

The passthrough in exports is imperfect: a fraction of firms price their products in local currency others in producer currency.

Response of consumption to house price shock

Borrowers' + savers' consumption



If house prices increase, consumers substitute from housing to other consumption (line with cross).
In the case of collateral constraints, an increase in house prices loosens the constraint and allow borrowers to increase their consumption (line with circle).

Observables, shocks, loose screws

24 observed variables

output, consumption, non-residential and residential fixed investments, hours, real wages, GDP and CPI inflation, short rate, real house prices, household (private sector) debt, US current account deficit, EUR/USD. *Linear trend extracted:* is it common?

26+3 shocks

4*technology, 2*investment technology (common sect.), 2*public expenditure, 2*consumption preference, 2*housing preference, home bias, 2*LTV, 2*PPI markup (not in text), 2*CPI markup (VAT), 2*external finance risk premium (not in text), UIP, 2*monetary policy, 3 common components (improving cross-country correlation)

Observables, shocks, loose screws...

99 estimated parameters

29 shock variances, 27 AR(1)s, and 43 deep parameters.

Screws

Common world factor in non-res. productivity, CPI tax (markup), monetary policy.
Correlated shocks:

- US home bias preference shock (shock to dom. and for. factor shares) and EA public expenditures.
- UIP shock and US non-res. productivity
- UIP shock and government expenditures (both US and EA)

Parameter comparison

Parameter	This paper	Adjemian *et al*	de Walque *et al*	Rabanal Tuesta
Substitution	1.55	2.34	1.08 (EA)	0.93
			1.26(US)	0.93
Habits US	0.56(S)	0.76	0.71	0.54
	0.32(B)			
Habits EA	0.77(S)	0.48	0.72	0.63
	0.30(B)			
Calvo price US	0.89	0.87	0.71	0.80
Calvo price EA	0.92	0.93	0.74	0.76
Index.price US	0.54	0.67	0.27	0.13
Index.price EA	0.51	0.35	0.20	0.8

Motivation of the model structure

Is the two-country dimension essential to produce most of the main results?

The most interesting result is related to the role of house prices in the optimal monetary policy. Is it related to two-country (or open economy) structure?

What is the role of various frictions?

Both nominal and real frictions? Because of the improvement of empirical fit.

Inflation measure in the Taylor rule?

Is the estimated rule simply misspecified and the alternative rule correctly specified?

It seems that the inflation measure in the Taylor rule is the distributed goods (both domestic and foreign) inflation. Inflation targeting central banks (not Eurosystem) have typically a version of CPI. *CPI contains a housing component: either interest rate cost or computed rents.*

Why to include real house price inflation to Taylor rule?

Why not house price inflation directly? Why inflation is lagged while real house price inflation is not?

Is the monetary policy optimal tool?

In Finland — and maybe in other countries — government gives 10 % guarantee to housing loans. Hence, it raises LTV by 10 percentage points! These guarantees could be set according to the state of the economy, eg counterbalancing the preference shock. Maybe fiscal policy would be more efficient tool here!

Real house prices the US and euro area are not that asyncronous