

Discussion

Effects of Capital Flow on the Equity and Housing Markets in Hong Kong

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Overview

This paper conducts an empirical analysis to highlight potential interdependencies and interactions between capital flow, equity prices and real estate prices.

This is an interesting and very relevant topic.

This paper provides nice stylized facts in the context of Hong Kong.

This discussion will mainly focus on potential methodological and causality issues.

Approach and Data

Two measures of capital flow

Currency Based measure (official)

CB = sum of the monetary base – spot foreign currency position of the banking system.

World Bank Residual (inofficial)

WBR = $-(\Delta\text{externalDebt} + \text{NetFDI} - \text{CurrentAccountDeficit} - \Delta\text{internationalReserve})$

Hang Seng Stock Index return (HS)

Residential Property Price Index return (PPI)

Remark: Regression analyses are done using quarterly level data

Results (Capital inflow and equity prices)

CB is overall positively correlated with equity prices but magnitude is small

$$\begin{aligned} HS_t = & -4.43 + 0.14HS_{t-1} - 0.26^{***}HS_{t-2} \\ & - 0.36CB_{t-1} + 0.49^*CB_{t-2} && \text{(Model 8P)} \\ & -20.98^{***}VIX_t - 6.40^{**}GFC + 0.48^*QE^*CB_{t-2} + \text{GDP growth (HK, China)} \end{aligned}$$

WBR is negatively correlated with equity prices but magnitude is small

$$\begin{aligned} HS_t = & -6.86^* - 0.05HS_{t-1} - 0.04HS_{t-2} \\ & - 0.13^{**}WBR_t && \text{(Model 8P)} \\ & -21.76^{***}VIX_t - 7.09^*GFC + \text{GDP growth (HK, China)} \end{aligned}$$

Results (Capital inflow and real estate prices)

CB is overall positively correlated with real estate prices (Model 8P)

$$\text{PPI}_t = 0.40 + 0.71^{***} \text{PPI}_{t-1} - 0.29^{***} \text{PPI}_{t-2} + 0.39^{***} \text{CB}_{t-1} \\ - 0.51^* \text{VIX}_t + 0.15^{**} \text{loan growth}_t$$

WBR is negatively correlated with real estate prices (Model 8P)

$$\text{PPI}_t = 1.54^{**} + 0.81^{***} \text{PPI}_{t-1} - 0.36^{***} \text{PPI}_{t-2} - 0.09^{**} \text{WBR}_t \\ - 7.44^* \text{VIX}_t + 0.23^{**} \text{QE}_t * \text{WBR}_t$$

Comments 1

The two capital flow measures (CB vs. WBR) have negative correlation (-0.33).

Which is a more appropriate measure?

Are the main messages of the paper the followings:

There is no unique optimal measure?

The two measures have different implications?

Thus Policy makers should look at different measures?

Comments 2

When drawing conclusions, methodology and causality could be an issue.

Do capital flows affect asset prices?

Or do anticipated changes in asset prices affect capital flow?

HS = f(lag CB) paper

CB = f (exp. HS index) competing hypothesis

Is the magnitude of capital flow large enough to move asset prices?

Or is the money coming into HK only a parking space that will move to other places so there is no correlation at all?

In any case, there are different approaches to address interactions and potential feedback effects or the absent of such.

Alternative 1

Sanvicente (2014): The foreign capital flows and the behavior of stock prices at BM&Fbovespa. Brazilian Administration Review 11.

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1807-76922014000100006

Simultaneous estimation of capital flow equation and stock return equation

$$F_t = \alpha + \sum_{j=1}^k \beta_{Fj} F_{t-j} + \sum_{j=0}^m \alpha_{Fj} R_{t-j} + \sum_{i=0}^n \gamma_{Fi} X_{Fit} + \varepsilon_{Ft} \quad t = 0, 1, \dots, T$$

$$R_t = \beta + \sum_{j=1}^k \beta_{Rj} R_{t-j} + \sum_{j=0}^m \alpha_{Rj} F_{t-j} + \sum_{i=0}^n \gamma_{Ri} X_{Rit} + \varepsilon_{Rt} \quad t = 0, 1, \dots, T$$

by using

- (a) non-conditional interaction analysis, through covariance decomposition;
- (b) conditional interaction analysis, with the use of VAR models.

Also related:

Kim and Yang (2009): Do Capital Inflows Matter to Asset Prices? The Case of Korea, Asian Economic Journal.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8381.2009.02014.x/abstract>

Alternative 2

Feng, Lin and Wang (2016): Do Capital Flows Matter to Stock and Housing Returns? Evidence from China. *Emerging Markets Finance and Trade*, forthcoming

<http://www.tandfonline.com/doi/abs/10.1080/1540496X.2016.1180283>

Local Projection (LP) Approach

LPs estimate the impulse responses without specifying and estimating the underlying true data generating process.

Remark: It could be interesting to compare results of different papers.