#### Monetary Policy and the Global Housing Bubble

by Jane Dokko, Brian Doyle, Michael Kiley, Jinill Kim, Shane Sherlund, Jae Sim and Skander Van Den Heuvel

> Discussion by: Fabrizio Perri University of Minnesota and Minneapolis FED

Economic Policy Meeting, Rome, October 2010

A D F A 同 F A E F A E F A Q A



• Has monetary policy been (partly) responsible for the housing prices bubble in US and in other countries?





• No!



# Why?

- Mainly empirical argument
- Estimate (up to 2002) a country by country VAR with, among other variable, house prices and index of monetary policy
- Estimation suggests for most countries shocks to monetary policy have very small effect on housing prices

# Why?

- Mainly empirical argument
- Estimate (up to 2002) a country by country VAR with, among other variable, house prices and index of monetary policy
- Estimation suggests for most countries shocks to monetary policy have very small effect on housing prices

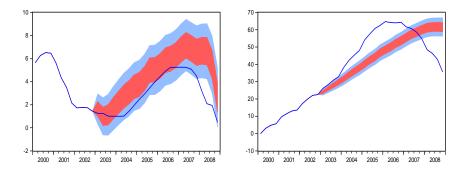
(ロ) (同) (三) (三) (三) (三) (○) (○)

- After 2002 house prices are way off their predicted path but monetary policy is very little off its path
- Monetary policy is not the main cause of the housing prices bubble

#### VAR conditional forecasts for US

## Policy rate

#### **Real House Prices**



#### A possible experiment

▲□▶ ▲□▶ ▲ 三▶ ▲ 三▶ - 三 - のへぐ

• Had the FED followed a tighter monetary policy..

#### A possible experiment

• Had the FED followed a tighter monetary policy..



#### A possible experiment

Had the FED followed a tighter monetary policy..



The path of house prices would have barely changed

ヘロト 人間 とくほ とくほ とう

3

#### Comments

◆□▶ ◆□▶ ▲□▶ ▲□▶ □ のQ@

- On the empirical methodology
- On monetary policy and asset prices
- On the importance of the question

• The paper repeats the VAR exercise for many countries but..

▲□▶ ▲□▶ ▲□▶ ▲□▶ ▲□ ● のへぐ

- The paper repeats the VAR exercise for many countries but..
- does not use the cross country evidence as an identifying factor
- i.e. have housing prices bubble been more severe (or more frequent) in countries that have followed a looser policy?

< □ > < 同 > < 三 > < 三 > < 三 > < ○ < ○ </p>

- The paper repeats the VAR exercise for many countries but..
- does not use the cross country evidence as an identifying factor
- i.e. have housing prices bubble been more severe (or more frequent) in countries that have followed a looser policy?
- uses a limited set of episodes (housing prices booms are a recurring phenomenon)

(ロ) (同) (三) (三) (三) (三) (○) (○)

- The paper repeats the VAR exercise for many countries but..
- does not use the cross country evidence as an identifying factor
- i.e. have housing prices bubble been more severe (or more frequent) in countries that have followed a looser policy?
- uses a limited set of episodes (housing prices booms are a recurring phenomenon)

(ロ) (同) (三) (三) (三) (三) (○) (○)

• imposes a linear structure, i.e. monetary policy affects housing prices in a linear fashion

#### An alternative approach

- Agnello and Shucknect (2009) use a panel probit approach
- Estimate a regime switching model in which monetary policy affects the probability of entering a regime of boom or bust

#### Booms and busts. 1971-2007

United States

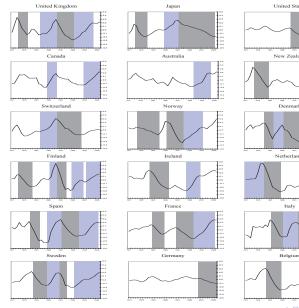
New Zealand

Denmark

Netherlands

Italy

Belgium



• • • • • • • • • ▲ 臣 ▶ ▲ 臣 ▶ ▲ 臣 → 의 ۹ ()

## Elasticities

	At means	
	Booms	Busts
Real per capita GDP (growth)	0.1156***	-0.0536***
	[0.0231]	[0.0145]
Short-term interest rate	-0.0466***	0.0340***
	[0.0105]	[0.0086]
Local real credit (growth)	0.0082**	-0.0122***
	[0.0042]	[0.0043]
Global liquidity (M3 growth)	0.0848***	-0.0548***
	[0.0240]	[0.0195]
	[0.0240]	[0.0195]

-

Note: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

• This analysis suggest that tighter monetary policy could have reduced the probability of entering a bubble.

(ロ) (同) (三) (三) (三) (三) (○) (○)

## Elasticities

	At means	
	Booms	Busts
Real per capita GDP (growth)	0.1156***	-0.0536*** [0.0145]
Short-term interest rate	[0.0231] -0.0466*** [0.0105]	[0.0143] 0.0340*** [0.0086]
Local real credit (growth)	0.0082** [0.0042]	-0.0122*** [0.0043]
Global liquidity (M3 growth)	0.0848*** [0.0240]	-0.0548*** [0.0195]

Note: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

- This analysis suggest that tighter monetary policy could have reduced the probability of entering a bubble.
- Is such a reduction in probability big enough to justify an interest rate hike?

## Should monetary policy target asset prices?

- Bernanke and Gertler (1999) identify two conditions under which this might desirable:
  - 1. Asset prices deviate from fundamentals (bubble)
  - 2. Large asset price swings have an effect on economic activity (financial friction)

(ロ) (同) (三) (三) (三) (三) (○) (○)

## Should monetary policy target asset prices?

- Bernanke and Gertler (1999) identify two conditions under which this might desirable:
  - 1. Asset prices deviate from fundamentals (bubble)
  - 2. Large asset price swings have an effect on economic activity (financial friction)
- In a standard monetary model where both conditions are met monetary policy should not respond to asset prices per-se, as, exactly because they are not fundamental, they do not carry additional information about what the FED cares, i.e. output and inflation

### Should monetary policy target asset prices?

- Bernanke and Gertler (1999) identify two conditions under which this might desirable:
  - 1. Asset prices deviate from fundamentals (bubble)
  - 2. Large asset price swings have an effect on economic activity (financial friction)
- In a standard monetary model where both conditions are met monetary policy should not respond to asset prices per-se, as, exactly because they are not fundamental, they do not carry additional information about what the FED cares, i.e. output and inflation
- Assemacher-Wesche and Gerlach (2009EP) provide empirical support for this view, i.e. various measures of asset prices and financial imbalances do not help forecast output gap and inflation

## A third condition

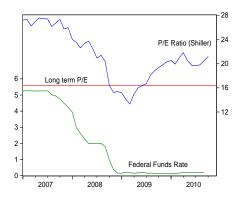
- What if monetary policy can actually affect the probability of starting a bubble?
- Non structural empirical work suggests a positive (but small) link
- Purely theoretical work also suggests a positive answer (Allen and Gale, 2000, Fahri and Tirole, 2010)
- We miss more quantitative and structural work so that policy makers can evaluate more precisely the tradeoff they are facing (for example introduce monetary policy in Piazzesi Schneider 2009, Eichenbaum Burnside and Rebelo, 2010)

### On the importance of the question

- In some sense nowadays this is still THE question in monetary policy
- Monetary policy is extremely loose in response to low inflation low employment environment but..

< □ > < 同 > < 三 > < 三 > < 三 > < ○ < ○ </p>

#### A new bubble?



- Stock prices are growing fast and possibly above their fundamental
- so should monetary policy stance be reversed?