Discussion of "Understanding Booms and Busts in Housing Markets" by C. Burnside M. Eichenbaum et S. Rebelo

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The paper

Introduction of "social dynamics" in asset pricing.
"Social dynamics" = non-market interactions, affects expectations.
Endogenize expectations in Piazzesi and Schneider (2010)

Compatible with rational expectations $\neq$ learning

Fascinating question.
Boom-bust without any macro shock, but due to endogenous social dynamic.

Plan

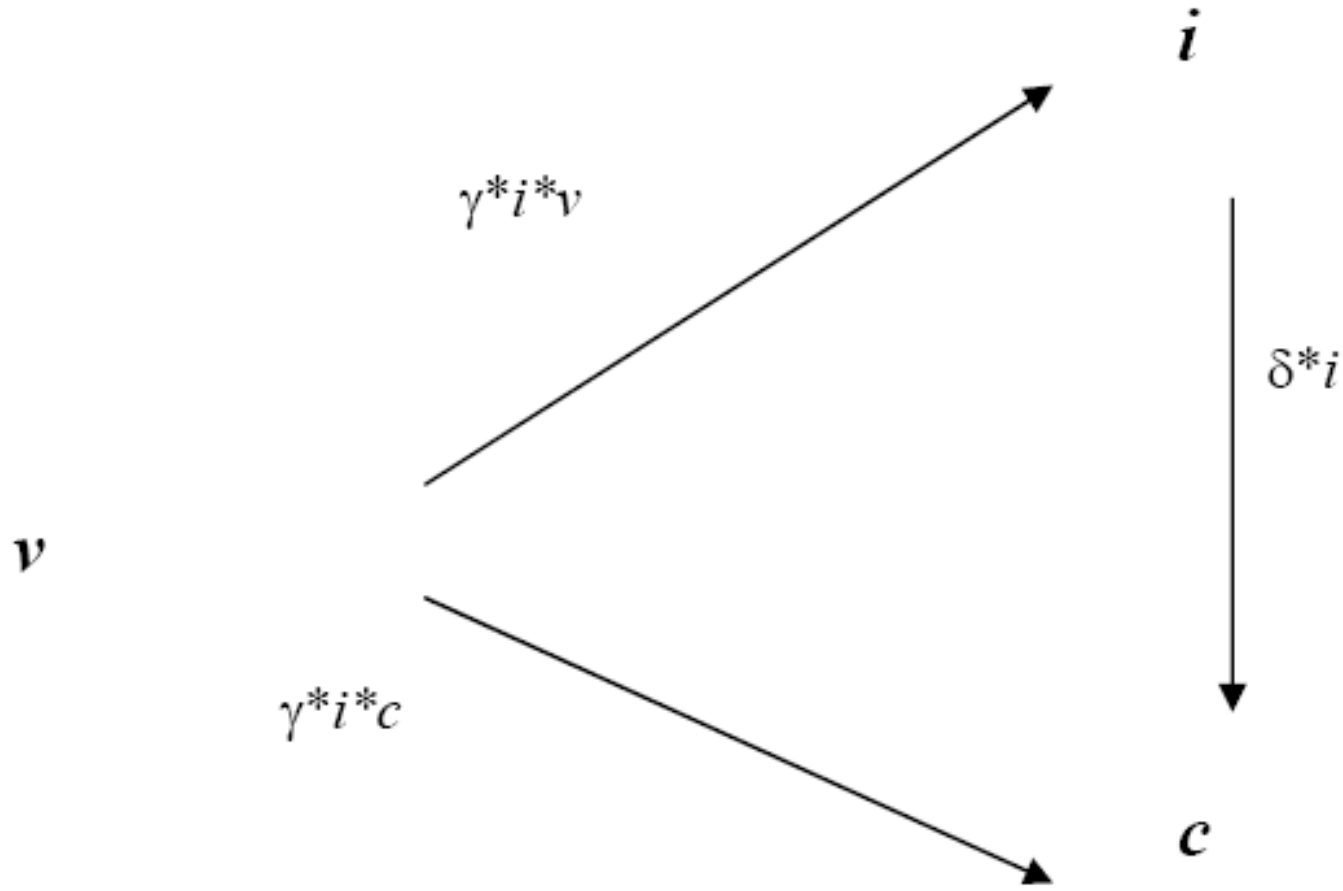
1. Social dynamics
2. Competitive market
3. Search market
4. Data on expectations about the US housing market

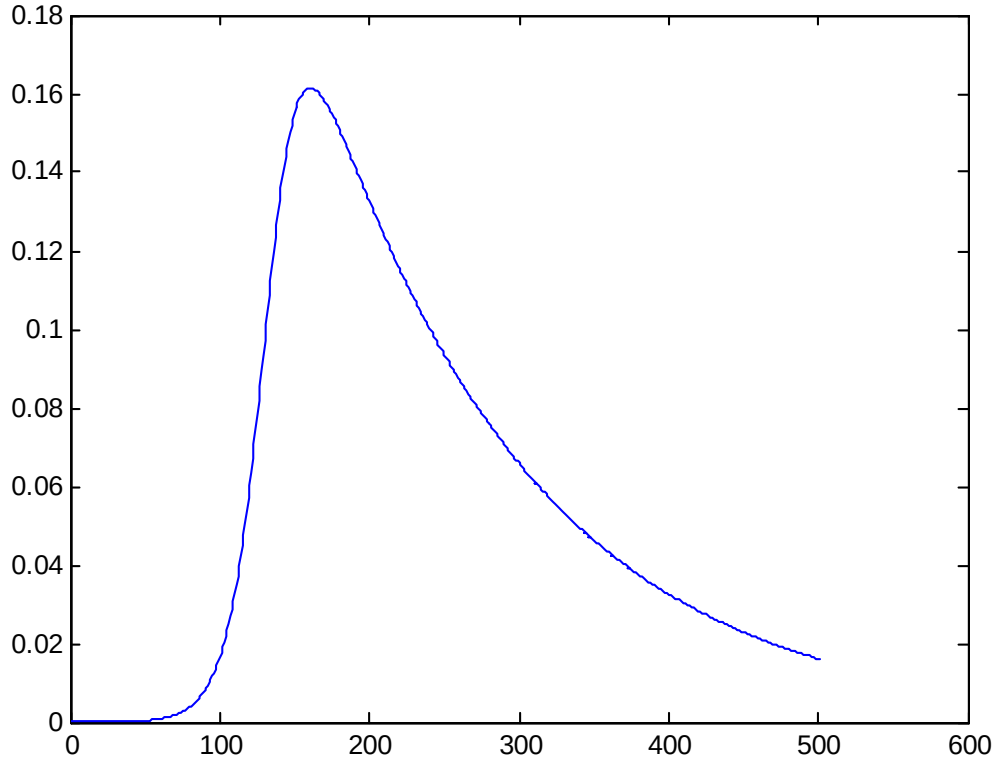
Social dynamics

Current payoff is ε^{low}.
Future payoff can take two values ε^{high} and ε^{low} given.
Probability ϕ at each period, uncertainty is revealed.

Three states : i, v, c:

If i expectations : ε^{high}
If v, c expectations : ε^{low}


i
γ*i*v
δ*i
v
γ*i*c
c



Share of i households

Social Dynamics

Number of agents having such expectations evolves exogenously.

- Not affected by asset prices
- Not affected by market structure : Even if it is difficult to find someone on the market, people affect each other the same way.
- Extensive margin only (number of people for exogenous expectations)
- Too strongly exogenous ? : No interactions with economic forces : a single equilibrium
- What is "curing" ? Fundamental value : ε^{low} ?

Competitive Market Structure

stock of homes : k,
$1 - k$ homes to rent.

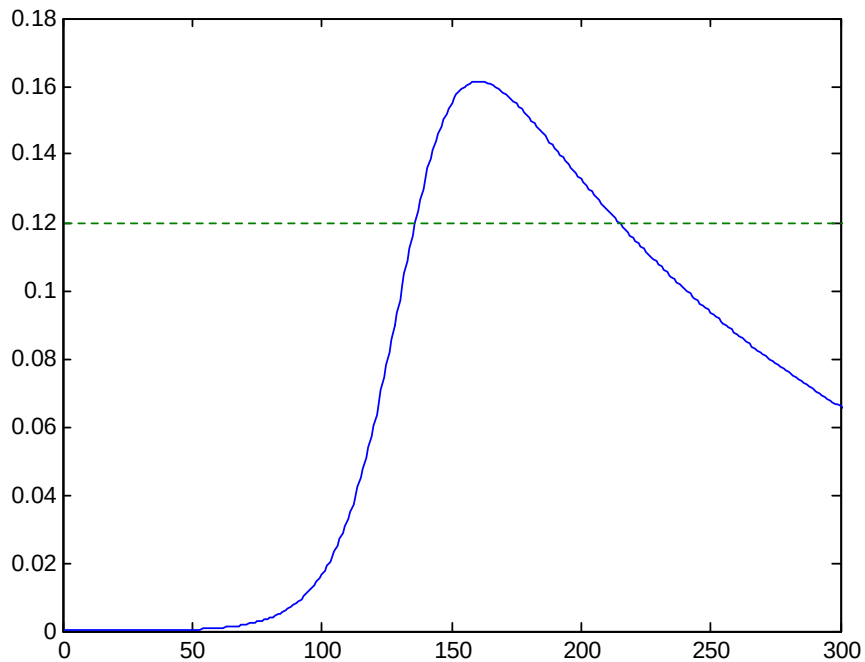
Strong limits to arbitrage :

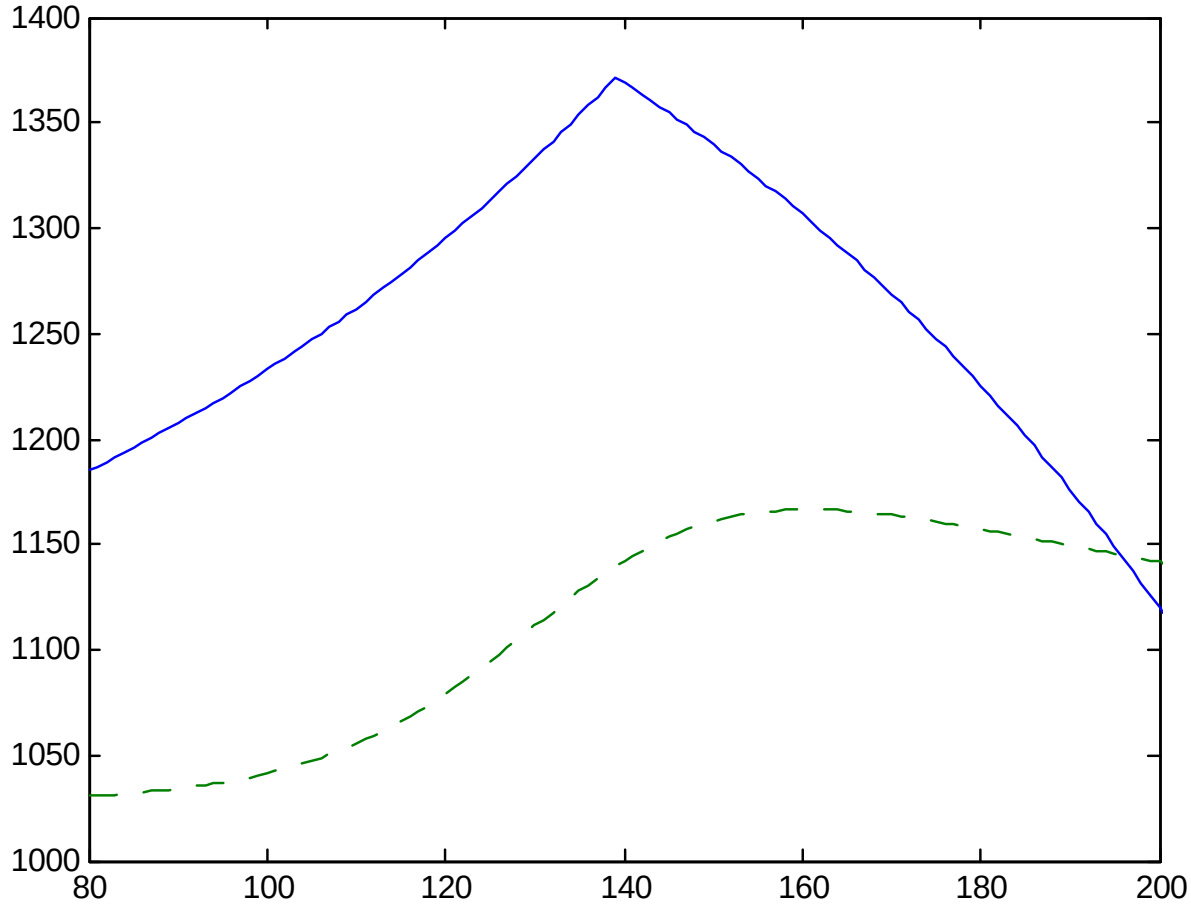
- Households can buy only one unit of the assets, no short selling.
- Houses are not produced
- No choice between renting and buying.

The price is made by the marginal investor.
If $i < k$ then the marginal investor is either v or c
If $i > k$ then the marginal investor is i.

$$i \quad : \quad P^{high} = \beta \frac{\varepsilon^{high}}{1-\beta}$$

$$v \text{ and } c \quad : \quad P^{low} = \beta \frac{\varepsilon^{low}}{1-\beta}$$

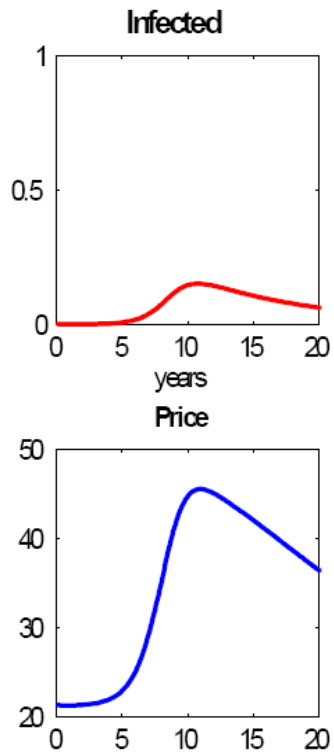




Optimism follows the price.

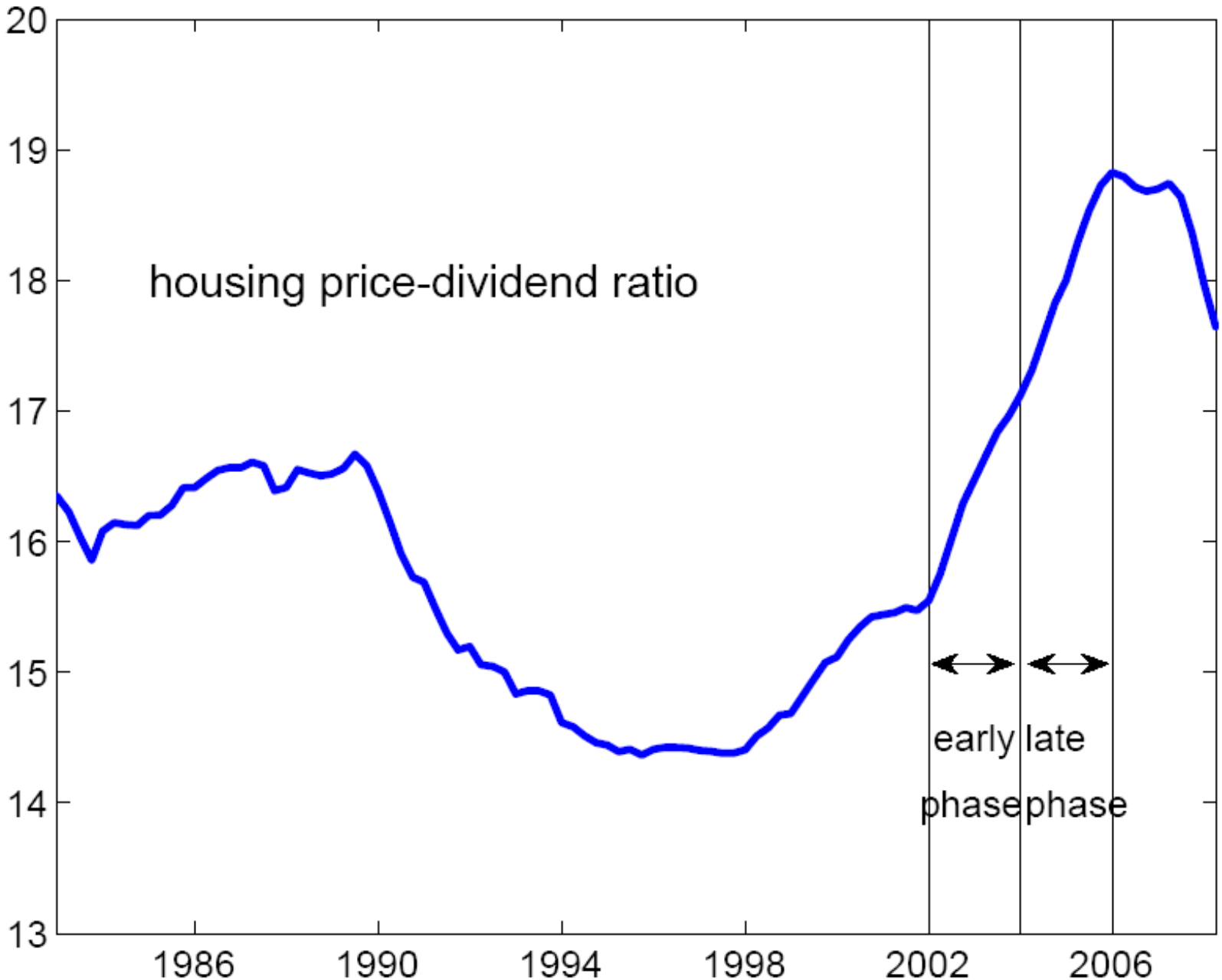
Search market

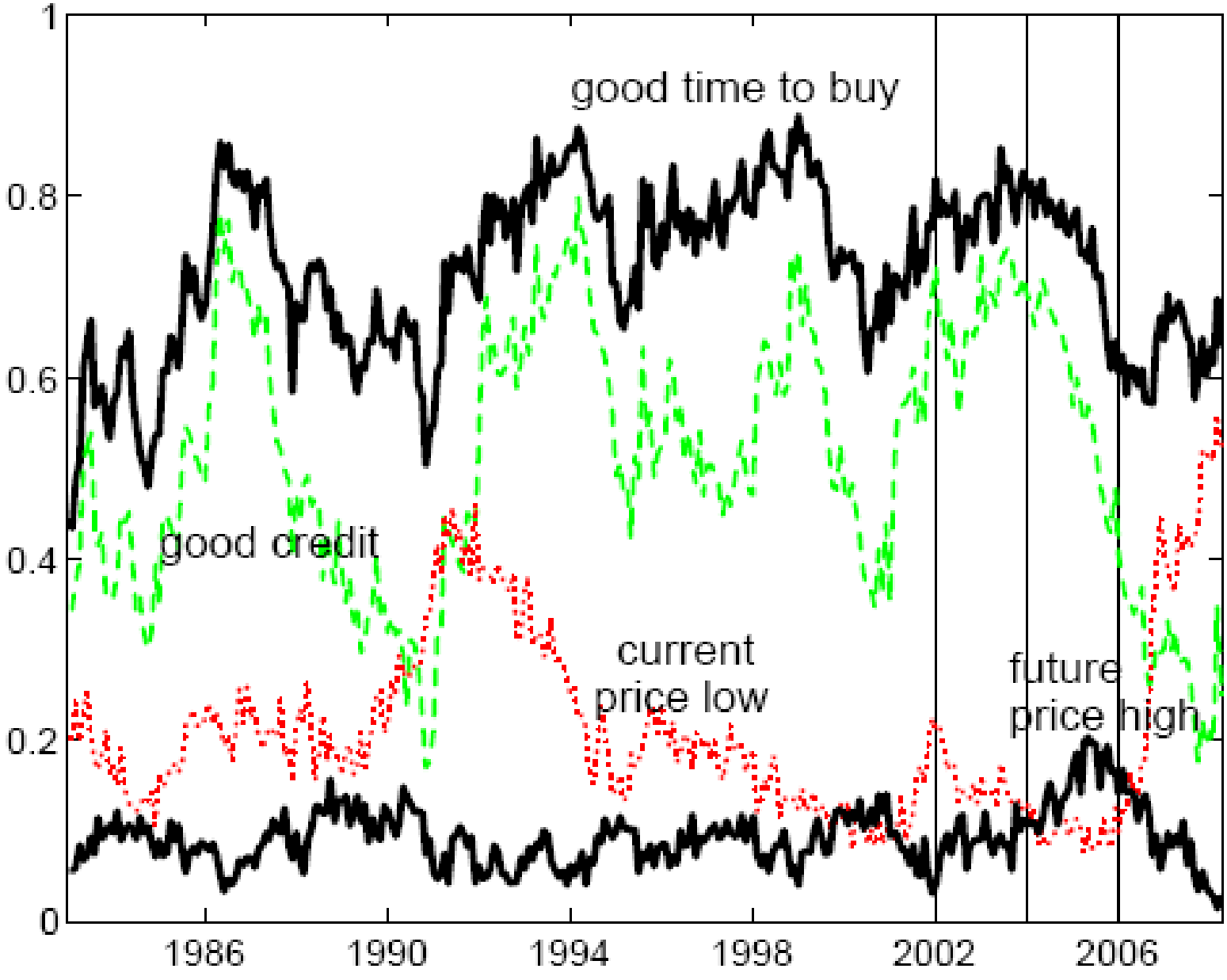
Search model of the housing market + time varying heterogeneous expectations.
Search model : Different model: no marginal agents : the price now follows the average valuation.
Very intuitive.



Data on housing market expectations

Use Piazzesi and Schneider (2010) analysis.
Average sentiment: I use Survey of Consumers of University of Michigan


20
19
18
17
16
15
14
13
housing price-dividend ratio
early
phase
late
phase
1986
1990
1994
1998
2002
2006

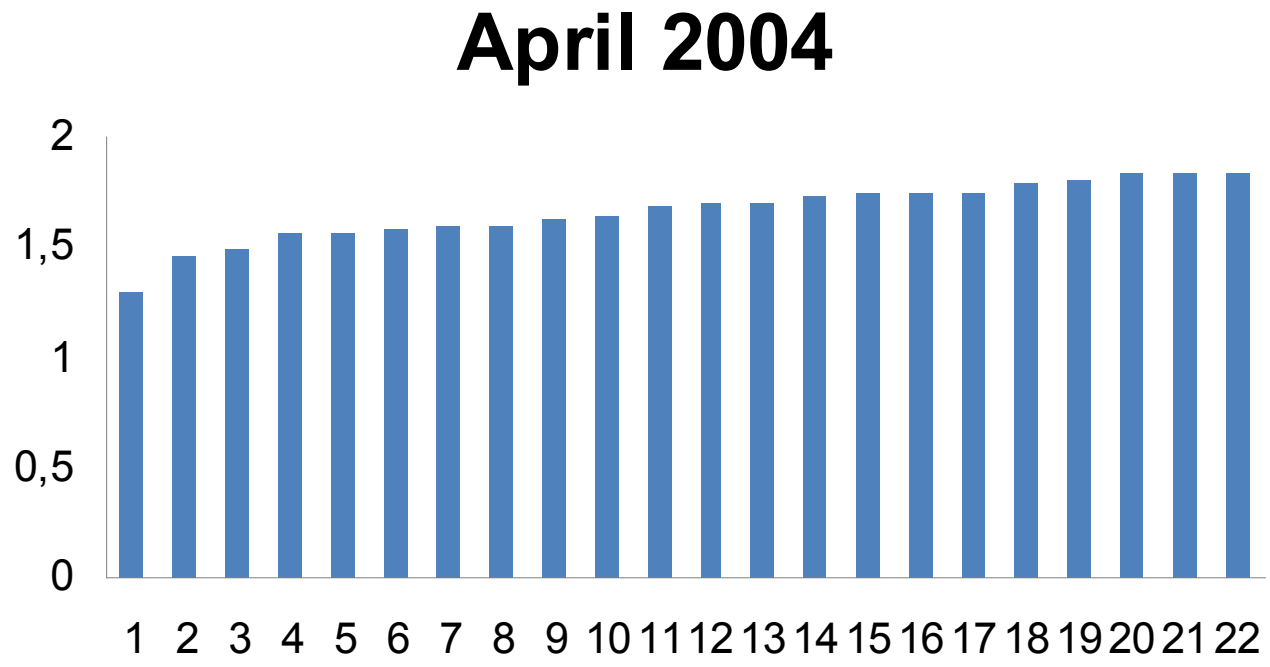

1
0.8
0.6
0.4
0.2
0
1986
1990
1994
1998
2002
2006
good time to buy
good credit
current
price low
future
price high

Data on housing market expectations: Dispersion

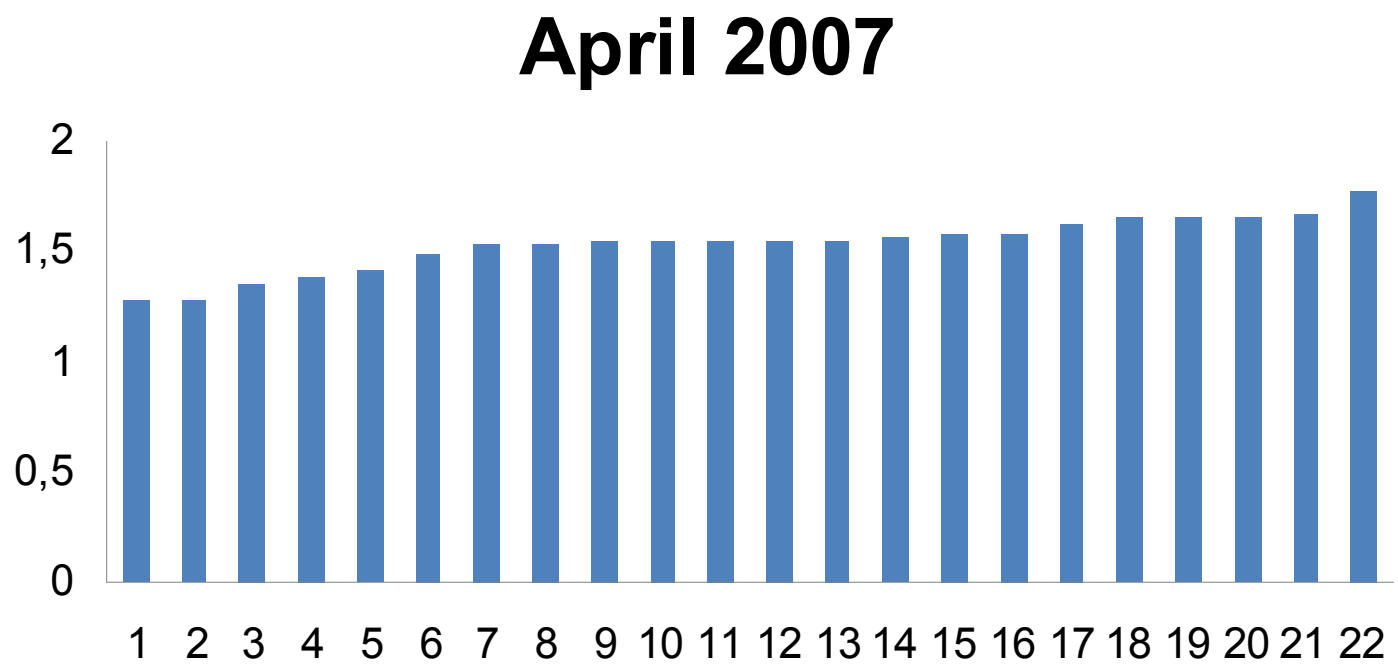
I use Consensus forecast. Provides for the US the expected Housing Starts, in millions of units.

Expectations of 20 Economic Forecasters. Forecasts one year ahead, ranked in increasing order.

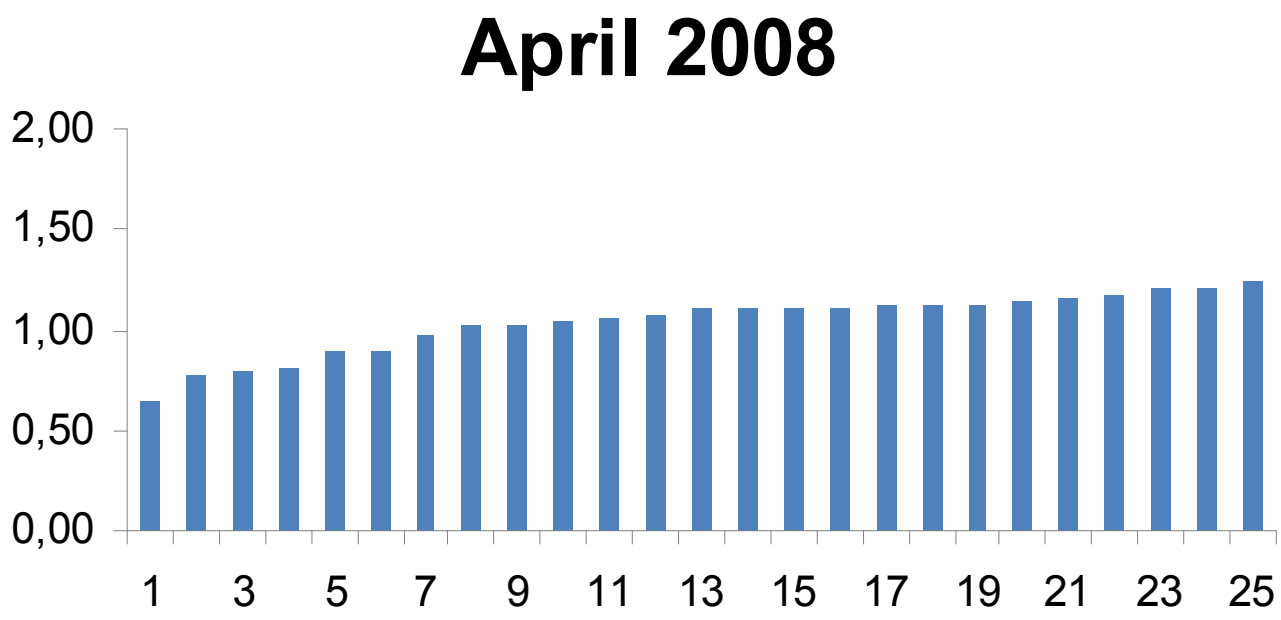
How much heterogeneity? Movements in the intensive or extensive margins ?


April 2004
2
1,5
1
0,5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

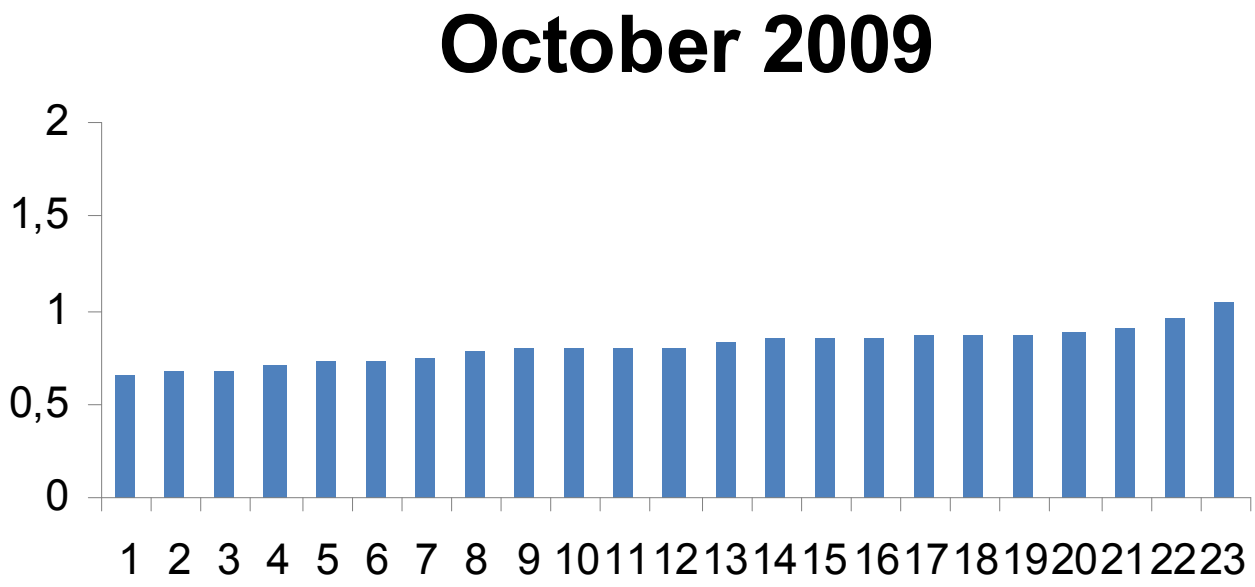
Average 1.66


April 2007
2
1,5
1
0,5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

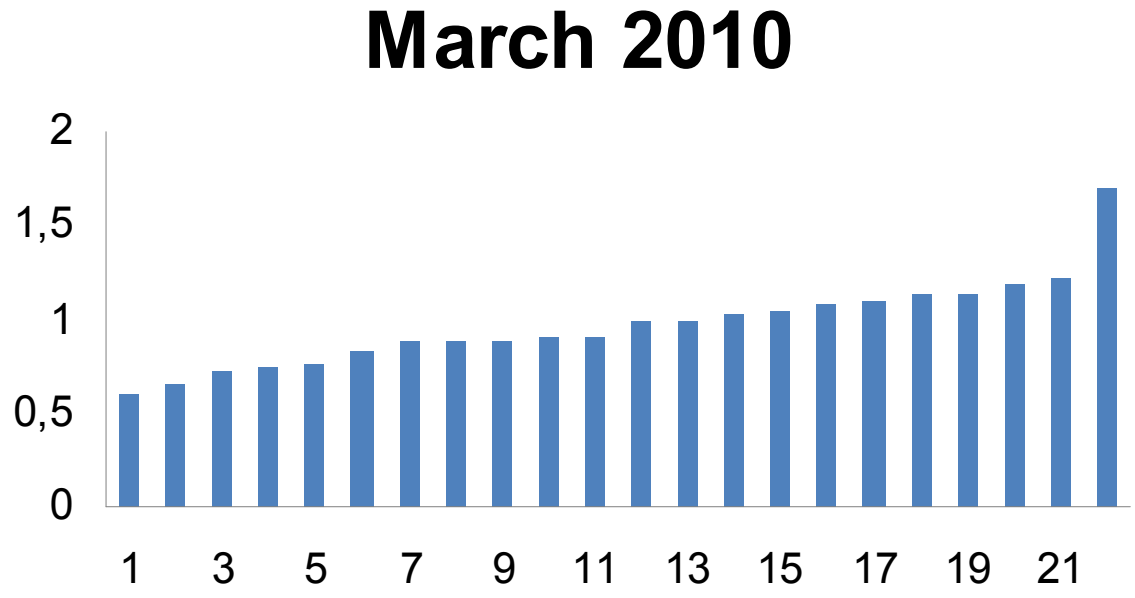
Average 1.54



Average 1.04


October 2009
2
1,5
1
0,5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Average 0.81



Average 0.97

1) Some heterogeneity in the cross section
2) But, more or less, uniformly distributed.
3) Lots if movements in the intensive margin. Common drift in the same direction.

Conclusion

1) Two different models in the same paper: different implications
2) social dynamics is very exogenous to prices and allocations, and (payoffs).
3) Movements as well in the intensive margin.
4) Normative implication ?

A very interesting and stimulating paper.
Dynamics of heterogeneous expectation in a tractable setting.