

# Arnold Kling Property Bubbles

## Caveats:

- Not Original Research
- Mostly Familiar with U.S. Market

# Outline

- Basic Rent-Buy Arbitrage
- House Price Expectations
- Credit Availability
- Other Impediments to Price Discovery
- Policy Challenges

# Rent-Buy Arbitrage

Should you buy?

Profitability = rental rate + appreciation – interest cost

Example: rent of 10,000 euro, price of 500,000 euro,  
so rental rate is 2 %

If interest rate is 4 %, then you need 2 % appreciation to break even. Higher appreciation means you should buy, lower appreciation means you should rent

Moral: rental rate is like a real interest rate

# Factors Pushing Up Fair Rental Rate

- Housing Capital Depreciation
- Property Taxes
- Long-term Investment, Not Liquid
- Risk Premium, Loss of Diversification

Moral: Rental rate should be above other long-term rates.

# Inverting the Rental Rate

Adjusted Real Interest Rate	Price-Rent Ratio
1 %	100
2 %	50
3 %	33.3
4 %	25
5 %	20
6 %	16.6
7 %	14.3
8 %	12.5
9 %	11.1
10 %	10
12 %	8.3
15 %	6.7

# Lessons from Rent-Buy Arbitrage

- The Range of Plausible Values for the Price-rent ratio is wide. Could quite reasonably be less than 10 or more than 20.
- Calculations very sensitive to expectations for house price appreciation. If expected appreciation is above the interest rate, you should buy at any positive rental rate!

# Home Price Expectations

Robert Shiller 2007, “Understanding Recent Trends in House Prices and Home Ownership”

- 2003 Survey: In Los Angeles, the median expected increase in home prices was 10 percent.

- In Milwaukee, median expected increase was 5 percent

# Implications of Shiller's Survey

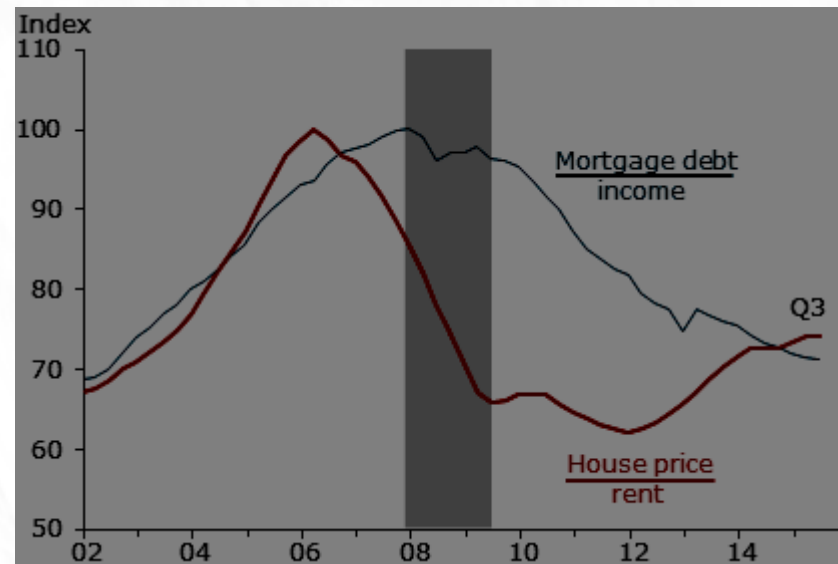
- People seemed to project recent past appreciation onto the future
- Expected appreciation strongly supported buying rather than renting
- Sooner or later, people were bound to be disappointed by implausibly high expectations
- Very conducive to bubbles
- [https://www.kansascityfed.org/publicat/sympos/2007/pdf/shiller\\_0415.pdf](https://www.kansascityfed.org/publicat/sympos/2007/pdf/shiller_0415.pdf)



# Limits on Credit Availability

- May keep people from buying, even when buying appears attractive
- Lenders may ease up procyclically. Minsky-Kindleberger
- Government may direct credit to housing procyclically

# Two Factors Together



# Implications

- U.S. housing boom featured sharp rise in price/rent ratio and mortgage debt/income ratio. Not happening today.
- Source: San Francisco Fed economists
- <http://www.frbsf.org/economic-research/publications/economic-letter/2015/november/what-is-different-about-latest-housing-boom-mortgage-debt-ratio/>

# Analysis in 2004

• "The price-rent ratio for the U.S. and many regional markets is now much higher than its historical average value. . . most of the variance in the price-rent ratio is due to changes in [expected] future returns and not to changes in rents. This is relevant because it suggests the likely future path of the ratio. If the ratio is to return to its average level, it will probably do so through slower house price appreciation."

• John Krainer, Chishen Wei SF Fed October 2004

<http://www.frbsf.org/economic-research/publications/economic-letter/2004/october/house-prices-and-fundamental-value/>

# Other Impediments to Market Efficiency

- High transactions costs
- Idiosyncratic risk, difficult to diversify
- Cannot sell short
- Cannot use put options or call options

# Challenges Posed by Property Bubbles

- Hard to detect, because we cannot be sure that we know the “correct” price-rent ratio.
- Hard to stop by raising interest rates. If expected appreciation is high, then as long as credit is available people will want to buy

# Policy Implications

- Policies tend to restrict supply and subsidize demand. This biases prices upward, particularly as demand starts to rise.
- As prices rise, potential buyers complain about lack of credit availability. Do policy makers encourage more lending or take away the punch bowl?
- Markets would be more stable if supply were more elastic and if credit availability were less procyclical