HOUSE PRICES AND HOME OWNERSHIP

Housing heresy?

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OXFORD ECONOMICS

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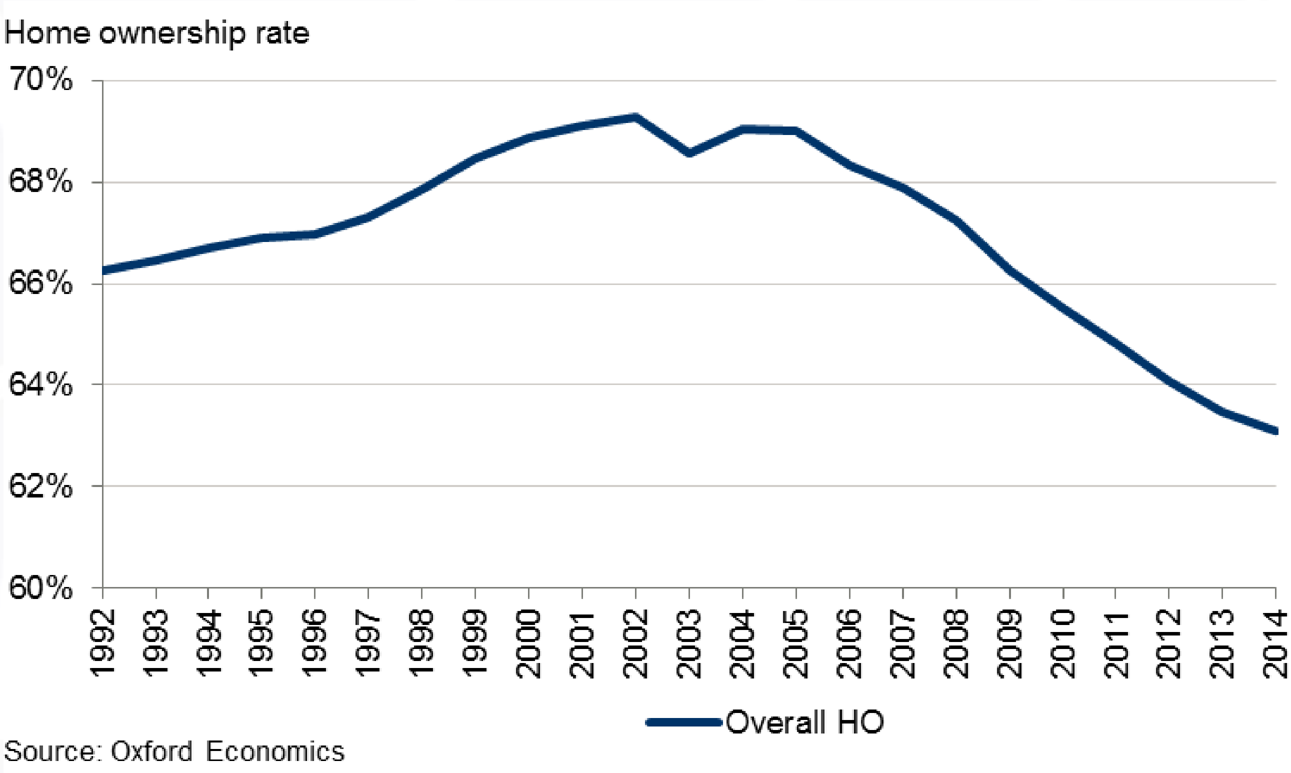
THE DECLINE IN UK HOME OWNERSHIP

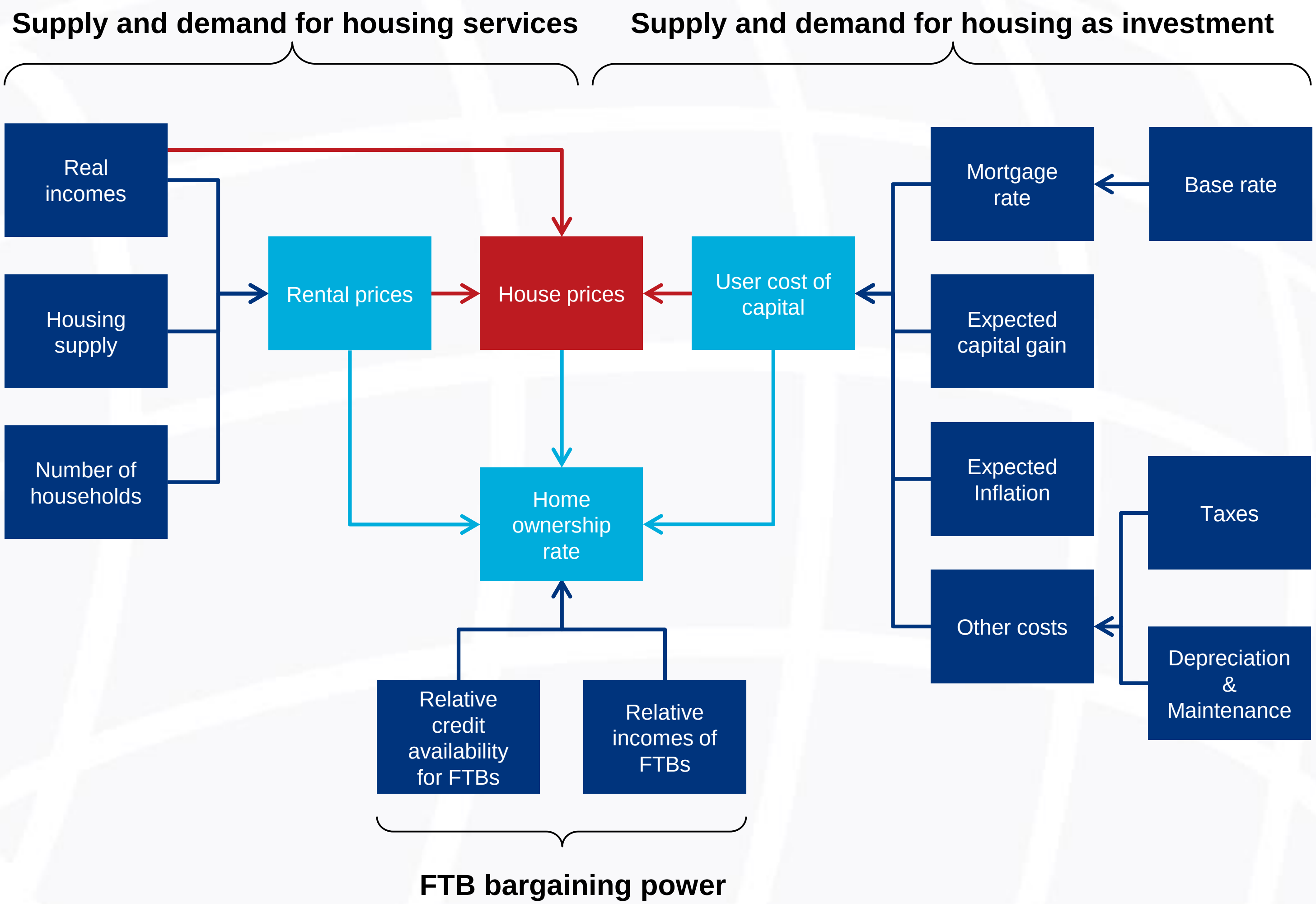


REDFERN REVIEW INTO THE DECLINE OF HOME OWNERSHIP

- **Led by Peter Redfern, CEO of Taylor Wimpey**
  - Commissioned by Shadow Housing Minister, John Healey MP
- **Aims of the Review**
  - Analyse the causes of falling home ownership and stimulate debate about the issue and the appropriate policy response
- **A panel of advisors**
  - Terrie Alafat CBE, Dame Kate Barker CBE, Andy Gray, Ian Mulheirn
- **Oxford Economics commissioned to assist**
  - Develop a macroeconomic model of house prices and home ownership to shed light on past drivers and to generate forecasts
- **Review due to be launched Wednesday 16 November**

2. THEORY AND CONCEPTS

THE HOUSING MARKET AS A SYSTEM



STRUCTURAL EQUATION MODELLING

- **Conventional approach inappropriate**
  - Complex interactions between different elements: rent on prices; both price and rent on home ownership etc.
- **SEM allows us to disentangle direct and indirect drivers**
  - Did home ownership fall because interest rates fell or because incomes rose?
  - What impact does supply have on home ownership?
- **Separate equations for rent, prices and home ownership rates:**
  - $\boldsymbol{Rent} = Housing\ stock\ per\ household + Earnings$
  - $\boldsymbol{House\ Prices} = User\ cost\ of\ capital + Rent + Earnings + Credit\ availability$
  - $\boldsymbol{Home\ ownership\ rate} = House\ Prices + Rent + User\ cost\ of\ capital + Income\ ratio + Mortgage\ rate\ ratio$
- **All results are based on the period 1992-2014 and relate to the UK.**

UNDERLYING RELATIONSHIPS

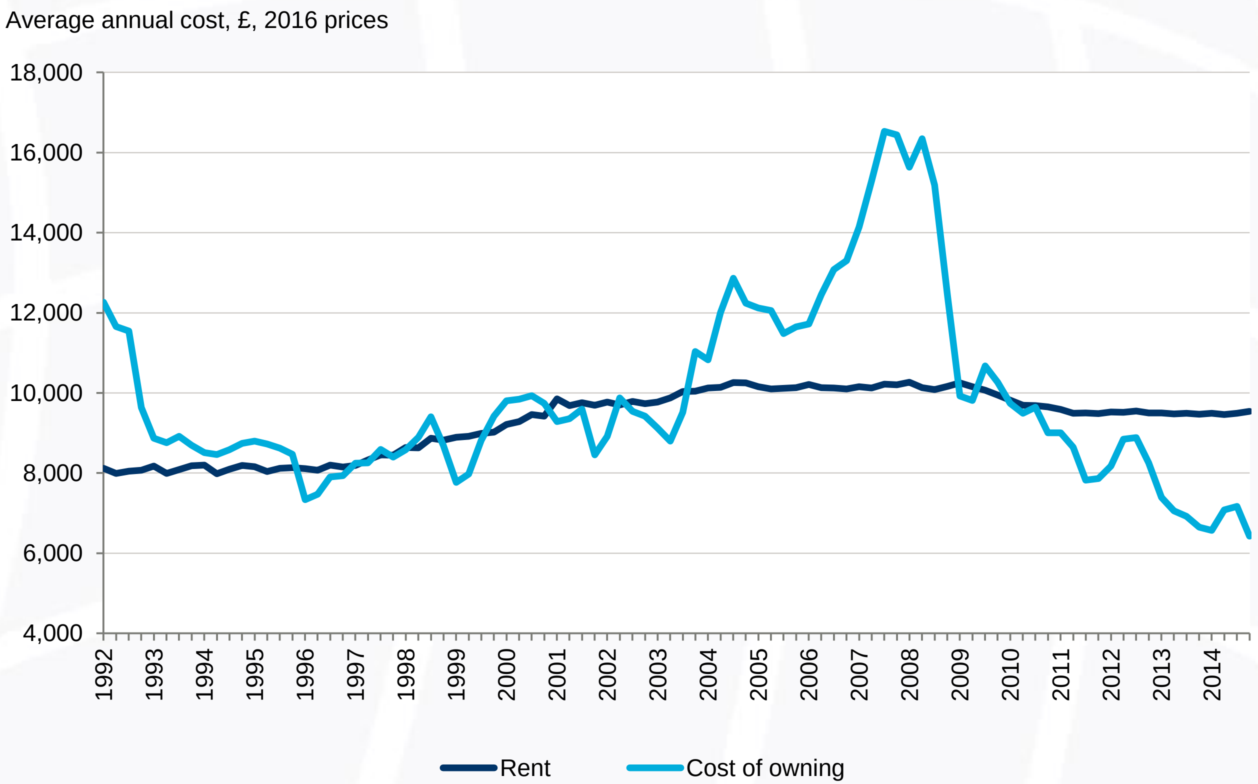
- Standard asset-pricing equation holds in housing as much as any other asset, so:

$$House\ price = \frac{Rent}{Real\ user\ cost\ of\ capital\ (\%)}$$

- User cost includes mortgage interest, foregone income on equity portion, taxes, maintenance and depreciation, and expected capital gain.
- This means the annual cost of owning equals the (imputed) rent on a property when the housing market is in equilibrium.
- Highlights two distinct concepts of affordability: *affordability of housing* vs affordability of *buying a house.*
- Rent affects house prices but house prices do not affect rent; prices adjust to bring the cost of owning into line with rent.

COST OF OWNING VERSUS RENTING

That theory is broadly borne out by the data, with the cost of housing for owners tending towards the cost of renting over time.

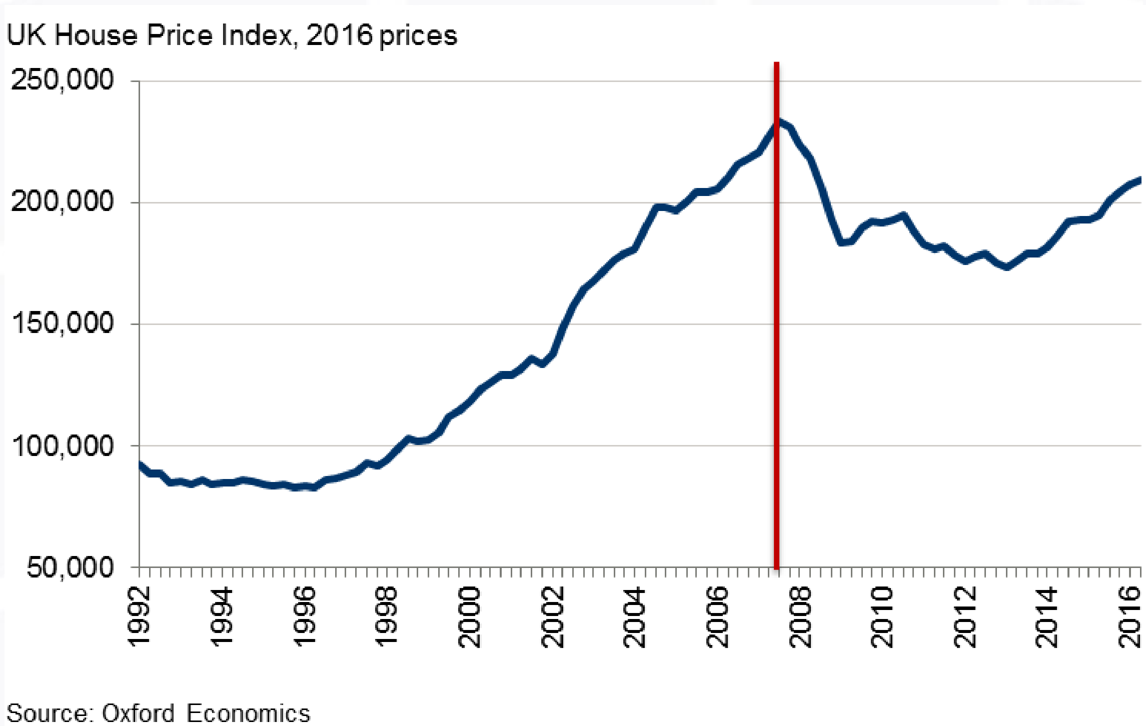


Source: Oxford Economics

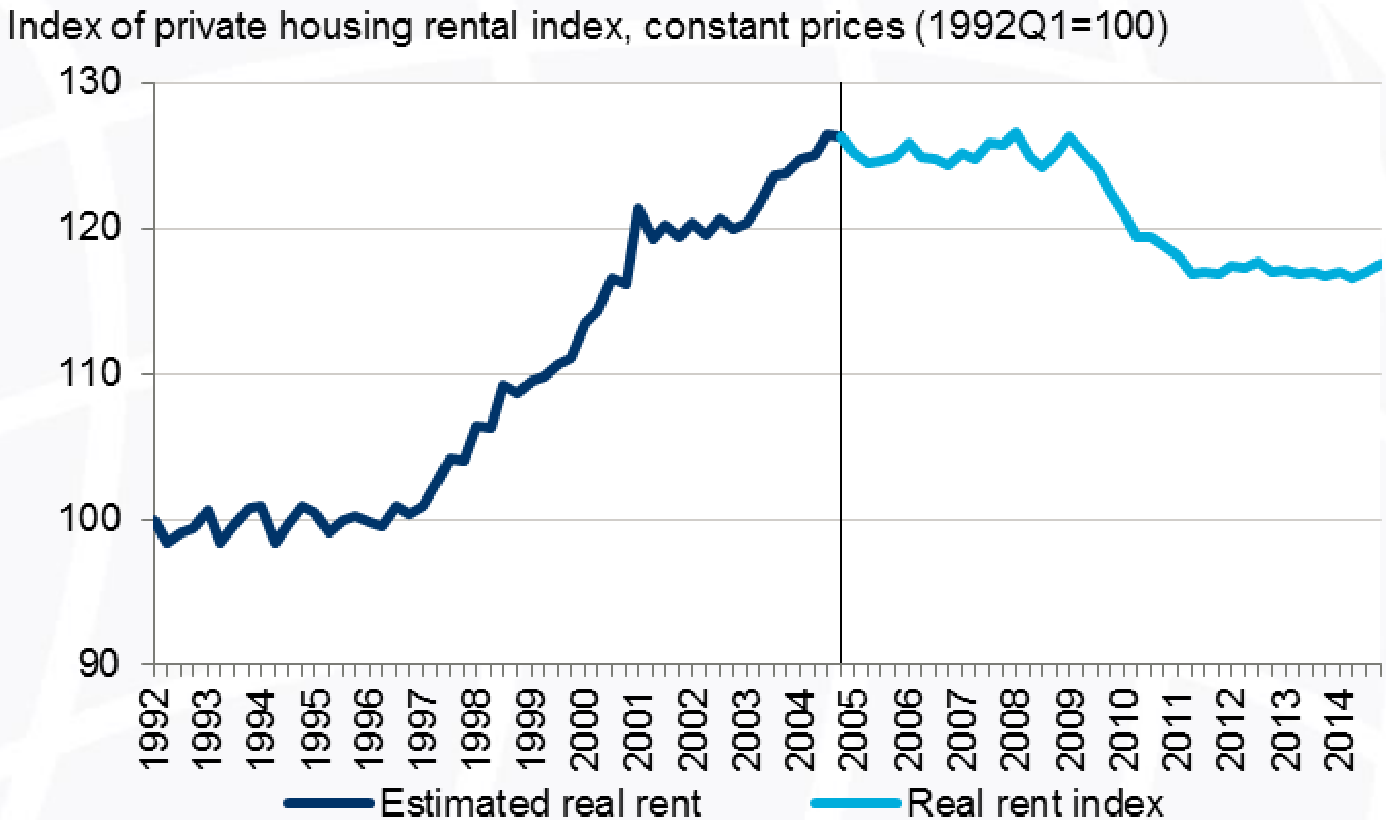
3. HOUSE PRICES

WHAT'S THE TREND?

Nationally prices have not yet regained their 2007 peak in real terms, despite rapid growth since 2013.



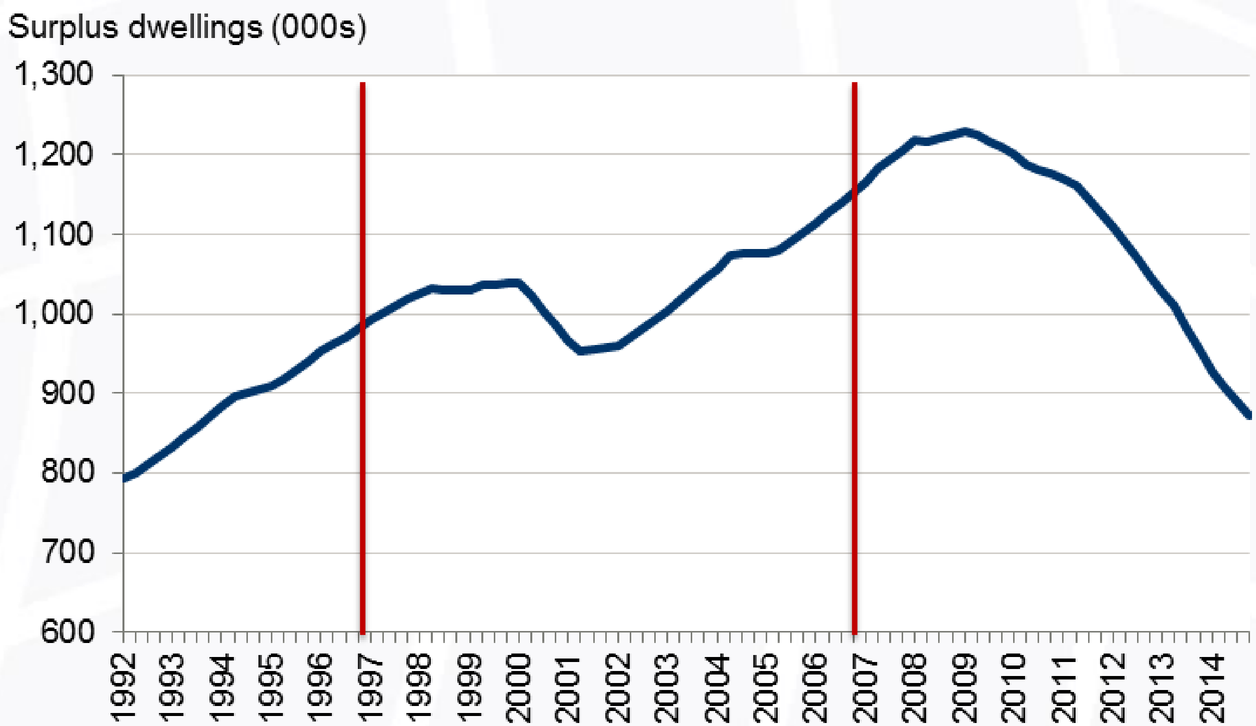
THE RISE AND FALL OF RENT



Source: ONS, Oxford Economics

SUPPLY OUTSTRIPPED HOUSEHOLD FORMATION – UNTIL THE CRISIS

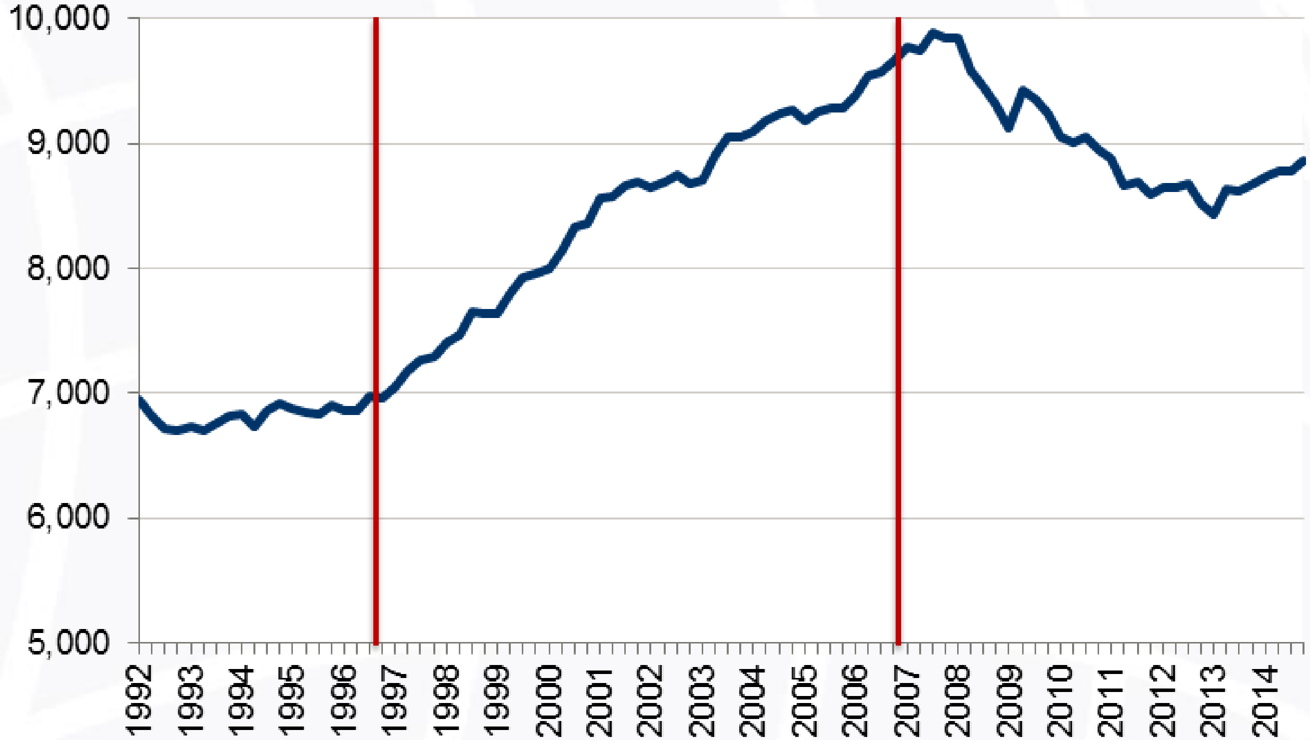
Supply constraints don't seem to have been behind the 151% price boom between 1996 Q4 and 2006 Q4, despite common perception.



Source: DCLG, Oxford Economics

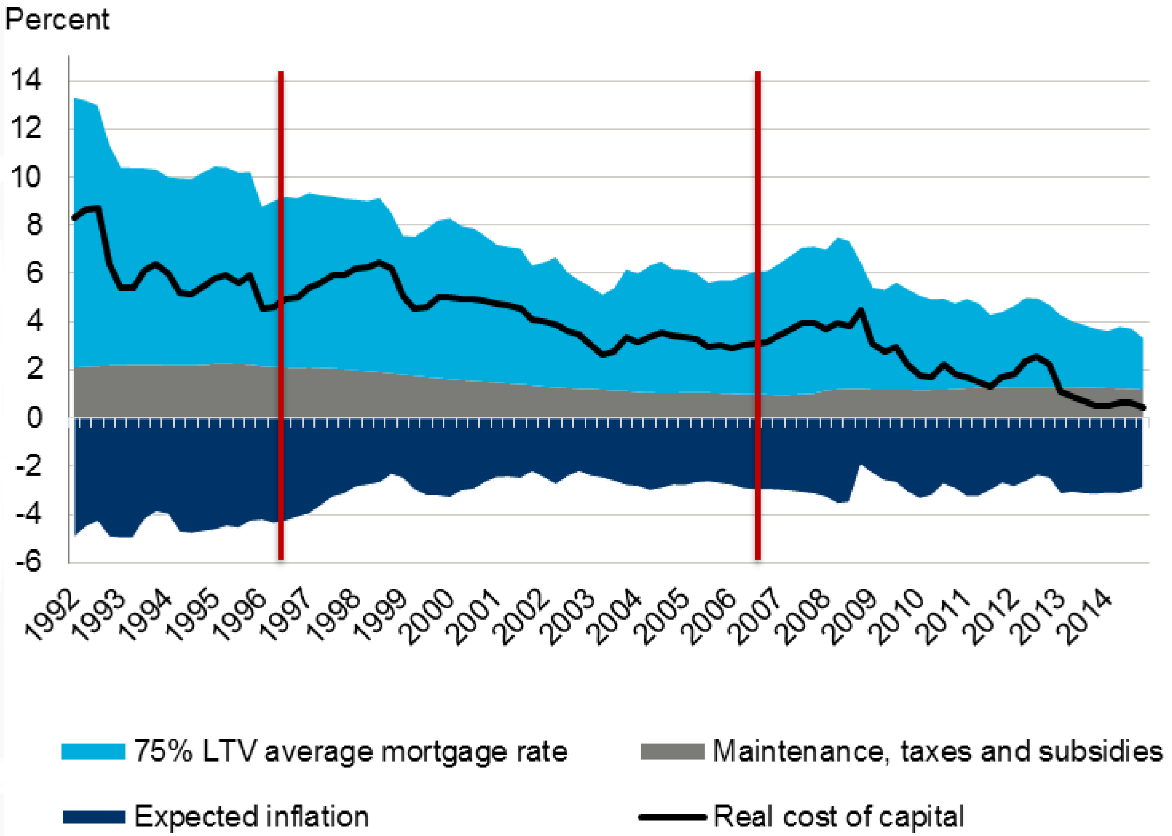
SO WHY WERE PRICES RISING?

Real quarterly earnings per household



Source: ONS, DCLG, Oxford Economics
Computed using total compensation of employees (ONS), number of employees (ONS) and number of households (DCLG)

SO WHY WERE PRICES RISING?



Source: Oxford Economics

MODEL RESULTS: RENT AND PRICES

Rental price model	Direct effects	Indirect effects	Total effects
Real earnings per household	0.784*** (0.002)	-	0.784*** (0.002)
Housing stock per household	-1.727*** -0.452	-	-1.727*** (0.452)
Recession dummy	-0.033*** (0.003)	-	-0.033*** (0.003)

House price model	Direct effects	Indirect effects	Total effects
Real rental price	1.031*** (0.244)	-	1.031*** (0.244)
User cost of capital	-0.186*** (0.011)	-	-0.186*** (0.011)
Mortgage gap (lag)	-8.742*** (1.901)	-	-8.742*** (1.901)
Real earnings per household	1.389*** (0.123)	0.808*** (0.192)	2.197*** (0.069)
Housing stock per household	-	-1.780** (0.697)	-1.780** (0.697)
Recession dummy	-	-0.034*** (0.008)	-0.034*** (0.008)

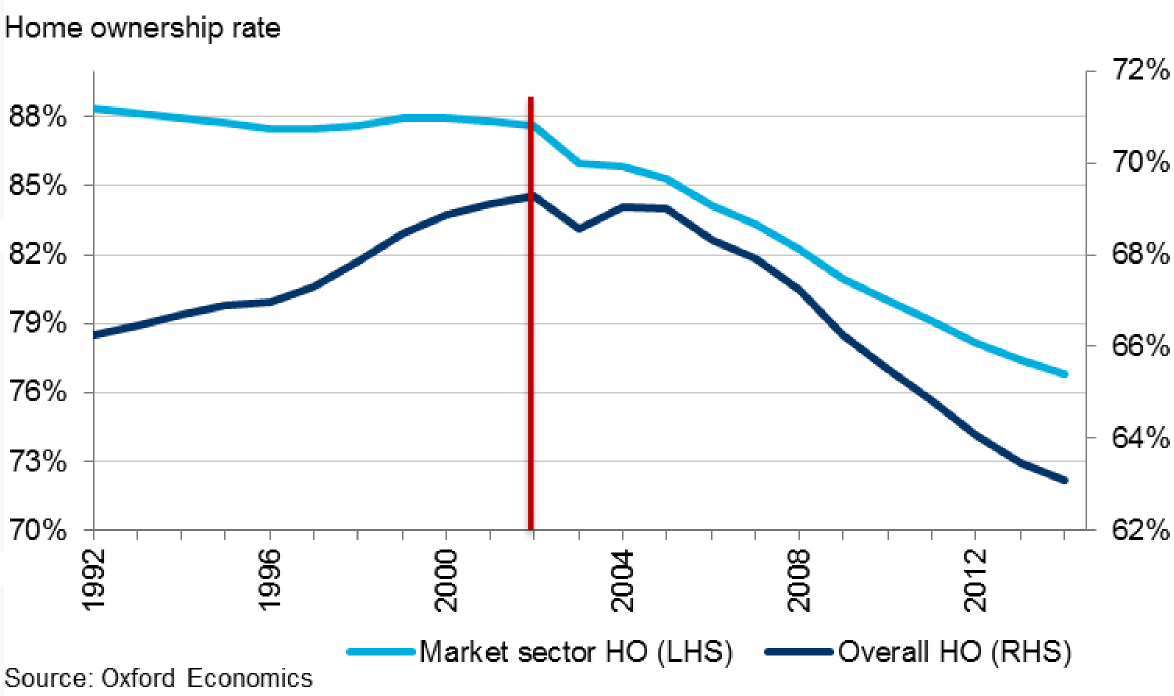
KEY RESULTS

- One percent more **stock** (or fewer households) cuts rent by 1.7% and prices by 1.8%. That's around 280,000 in excess of household growth**.**
- One percent increase in real **earnings** per household increases prices by around 2.2%.
- Fifty percent increase in the **cost of capital** (very approx. 1ppt on mortgage rates) lowers prices by 9.3%.

4. HOME OWNERSHIP

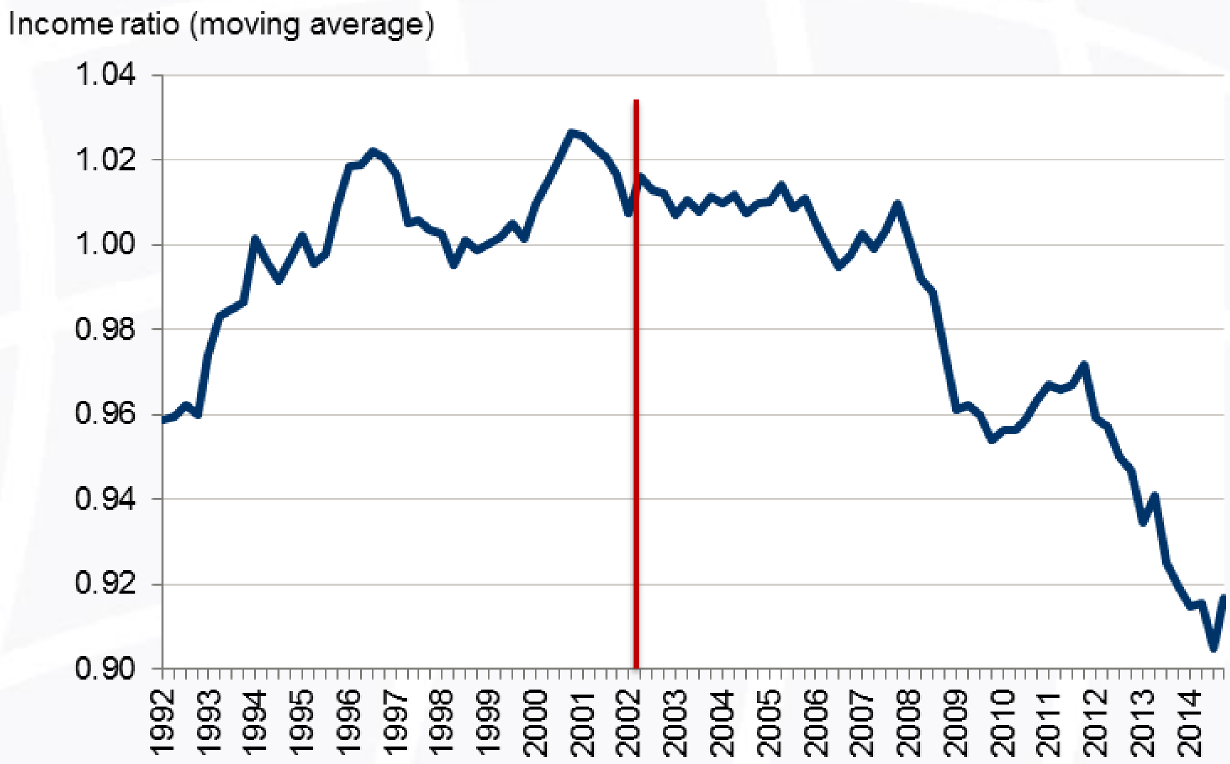
WHAT'S THE TREND?

Home ownership in the market sector was high and stable for a long time before 2002, with the overall rate rising, but both have since fallen rapidly.



DETERIORATING EARNINGS RATIO 28-40 VS 40+

The average earnings of younger and older workers have typically been roughly equal, but the ratio deteriorated sharply from 2008.

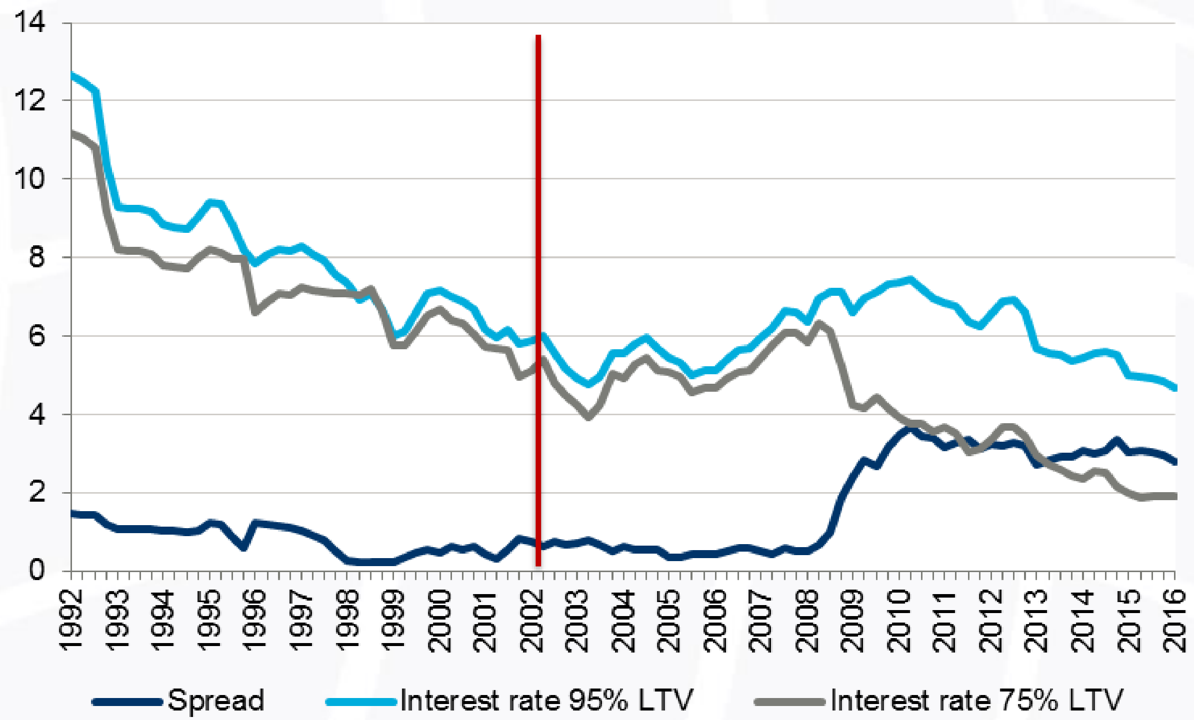


Source: Labour Force Survey

DETERIORATING RELATIVE MORTGAGE RATES

FTBs' relative mortgage rates also deteriorated sharply from 2008, due to sentiment and regulation.

User cost of mortgage capital (%)



Source: Bank of England, Oxford Economics

MODEL RESULTS: HOME OWNERSHIP

Home ownership model	Direct effects	Indirect effects	Total effects
Real house price	-0.838*** (0.122)	-	-0.838*** (0.122)
Real rental price	1.246*** (0.321)	-0.863*** (0.240)	0.382 (0.282)
User cost of capital	-0.084** -0.037	0.156*** (0.025)	0.072*** (0.021)
Mortgage gap (lag)	-	7.323*** (1.919)	7.323*** (1.919)
Real earnings per household	-	-0.864*** (0.060)	-0.864*** (0.060)
Housing stock per household	-	-0.660 (0.489)	-0.660 (0.489)
Recession dummy	-	-0.013 (0.009)	-0.013 (0.009)
First-time buyer credit	-0.143*** (0.011)	-	-0.142*** (0.011)
First-time buyer income ratio	1.073*** (0.303)	-	1.073*** (0.303)

KEY RESULTS

- HO rates are negatively associated with prices and positively associated with rent.
- **Supply** has no clear impact on home ownership rates – makes sense since it lowers both rent and prices. There may be a positive effect on levels.
- HO rates are very sensitive to the gap in **mortgage interest rates for FTBs versus others**.
- Declining **relative earnings** of younger people are also likely to be part of the story.

COMING SOON TO A PRINTER NEAR YOU…

- The Redfern Review will be launched on Wednesday 16 November
- The Review Document and Oxford Economics' technical report will be available at www.redfernreview.org/
- Any questions?

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