The British system of land use regulation: key features and (unintended) economic consequences

Presentation

The British System of Land Use Regulation:
Key features and (unintended) economic consequences

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LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

SERC Spatial Economics Research Centre

Overview

1. **The policy issues – some stylized facts**
2. **Features of the British system of land use regulation and implications**
3. **Empirical evidence**
   a) The casual impact of local regulatory constraints on house prices in England
   b) Putting the evidence in an international context
   c) Impact on retail and office markets
4. **Conclusions**

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Stylized fact 1

- **House values in England – particularly in London and SE – are amongst highest in world**

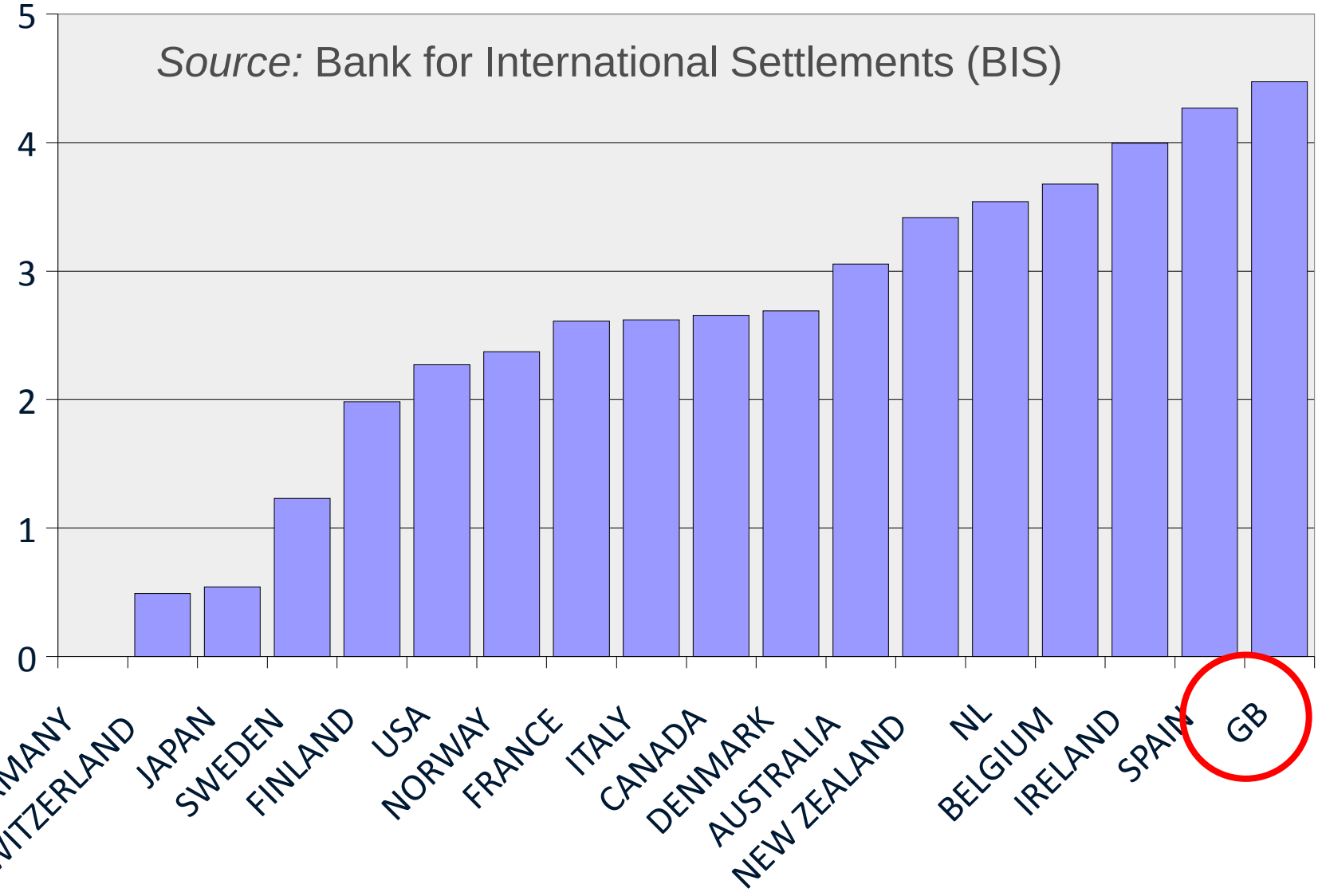
  Mean price of single detached house (all transactions in 2008): [1)]

  - Kensington: 4.3M £
  - Richmond: 1.2M £ (greenish London suburb)
  - Hackney : 770k £ (rather distressed London borough)
  - Cotswold: 470k £ (rural West of England)

- **Buying price per square metre second highest in the world** (topped only by Monaco) [2)]

Sources: [1)] *Land Registry;* [2)] *Globalpropertyguide.com (last accessed 3/2013)*

Real house price growth in %, average 1970 - 2006



Stylized fact 2

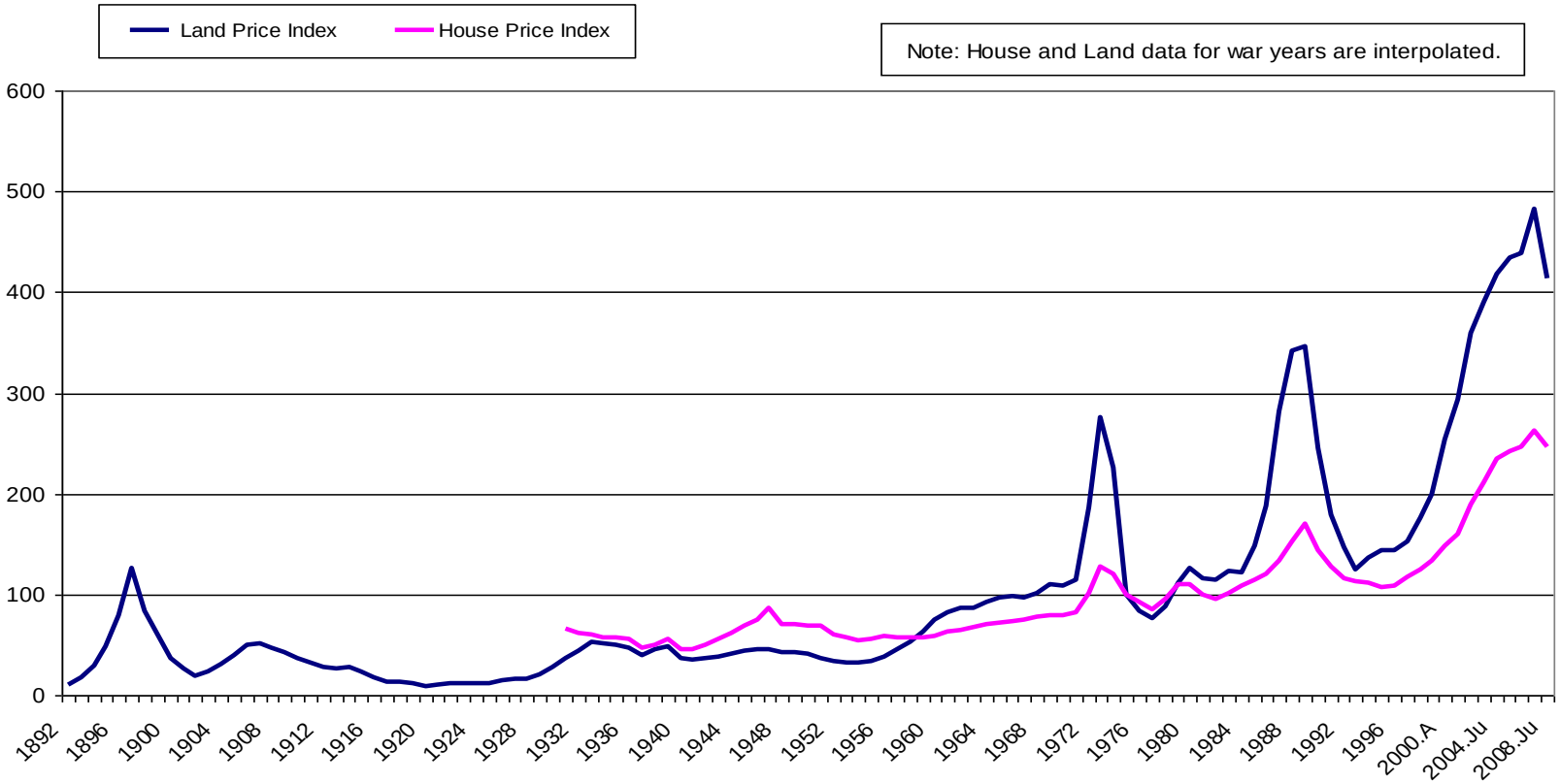
- **House prices in UK (and particularly England) are also extremely volatile**
  - UK as a whole substantially more volatile than single most volatile market in US
  - 1980s/90s cycle: boom/bust in real terms
    - UK: +83% / -38% [1)]
    - Los Angeles: +67% / -33% [2)]

Sources: [1)] Nationwide; [2)] Glaeser et al. (2008)

Stylized fact 3

- **Volatility has increased in recent decades…**

Real Land & House Price Indices (1975 = 100)



Source: Cheshire (2009)

And there is spatial variation in volatility…

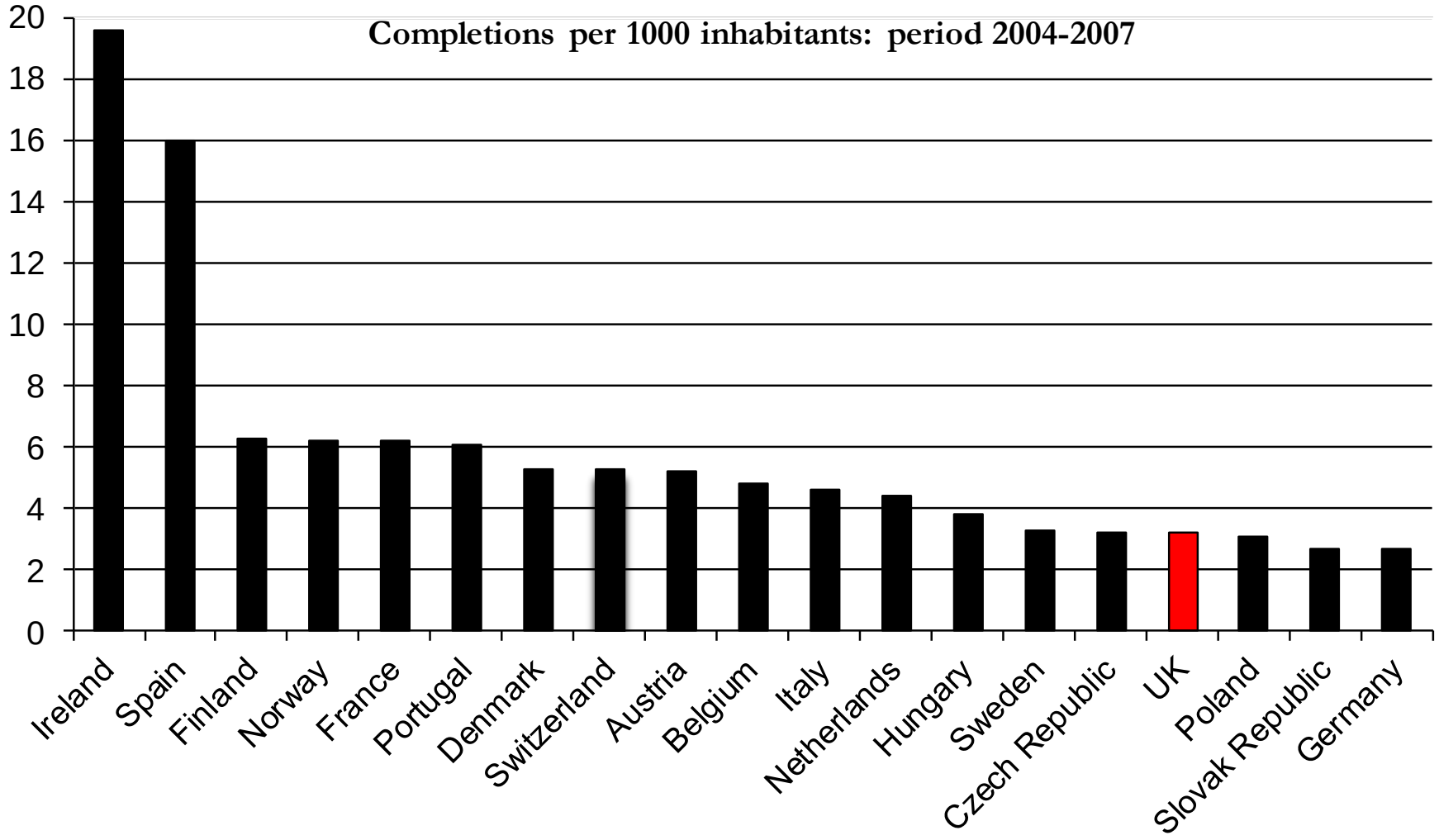
Source: Nationwide, FT

Stylized fact 4

- **Housing units in UK are not only extremely expensive and volatile but also extremely small by international standards…**
  - A new-build house in UK is 38% smaller than in densely populated Germany and…
  - 40% smaller than in the even more densely populated Netherlands
- **And there are very few new-build homes…**

Source: Statistics Sweden (2005)

Stylized fact 4 (cont.)



Source: Euroconstruct

Stylized fact 5

- **Not just housing – office space in UK is also extremely expensive (and volatile)**
  - Total office occupation costs per m^2 in Birmingham in 2004: 44% higher than in Manhattan NY *(KingSturge, 2004)*
  - Construction costs about half *(Cheshire & Hilber, 2008)*

⇨ **How can we make sense of this?**

Derived research questions

- **What factors cause the high level and volatility of prices and corresponding space shortage?**

- **Might the British system of land use regulation be a (the main) culprit?**

Some background: The British system of land use regulation

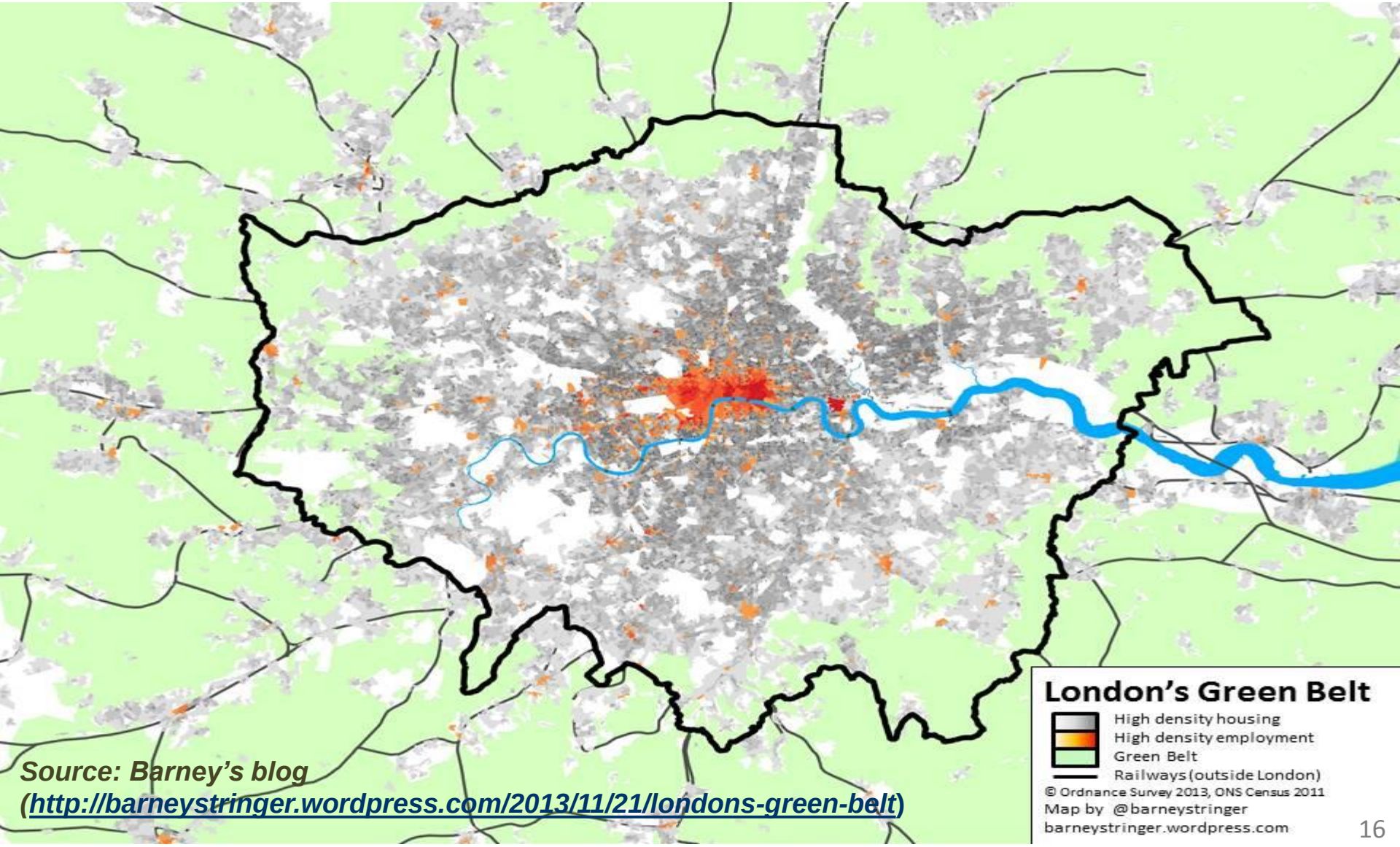
- **Supply constraints and Greenbelts have long history...origin dates back until at least 1580**
  - Subjects of Queen Elizabeth I were commanded to "desist and forebare from any new building of any house or tenement within three miles of any of the gates" of the City of London "where no house hath been known"
  - But was never fully enforced and disappeared following Fire of London in 1666

Some background *(cont.)*

- **Today's planning system established in 1947 through Town and Country Planning Act**
- **Key features**
  - expropriated development rights of land owners
  - Designated 'use' classes, whereas any change of 'use' requires development control permission (granted at local level)
  - Aim is 'development control' or 'containment'

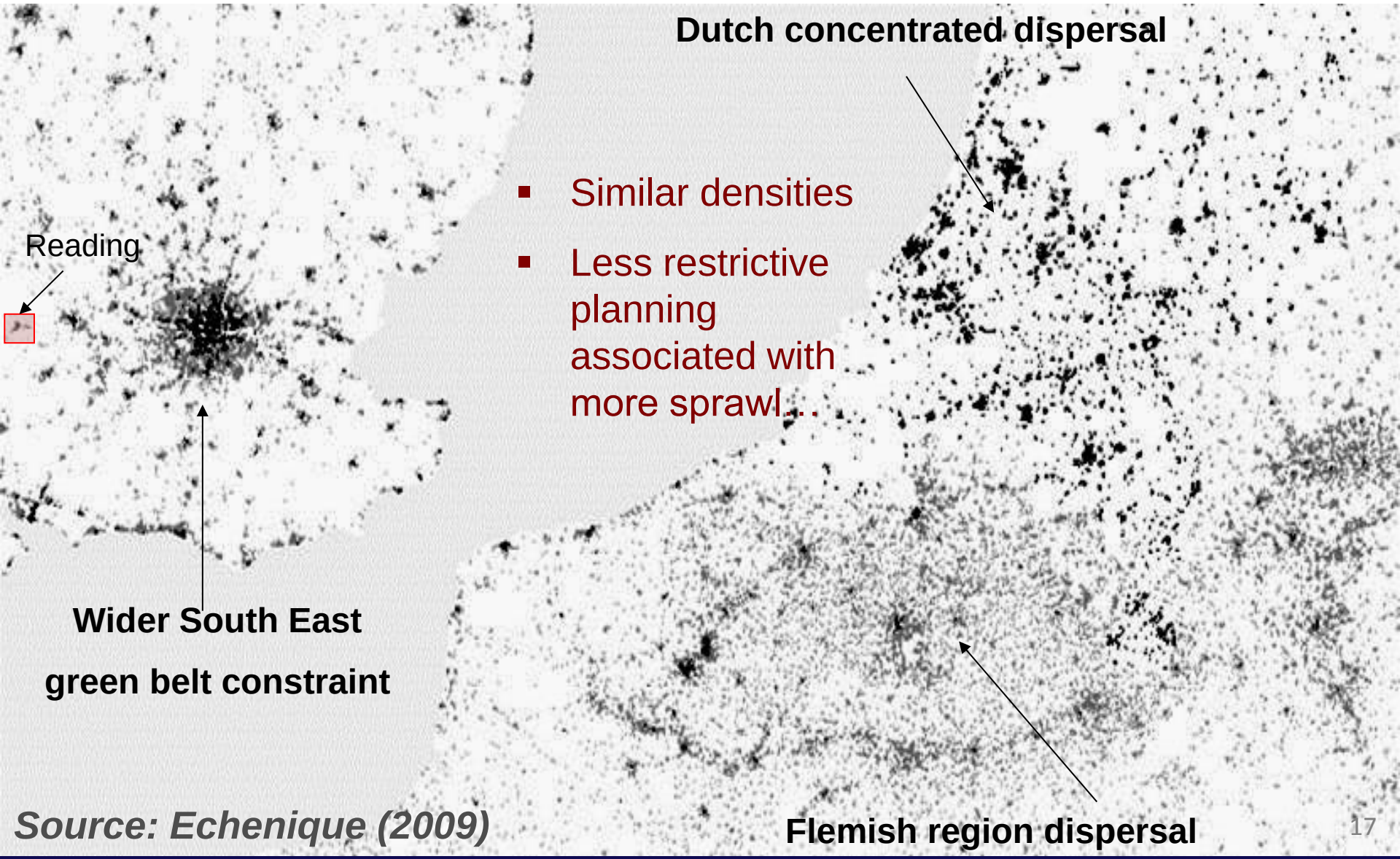
What Greenbelt containment looks like…

And in London…



Source: Barney's blog (http://barneystringer.wordpress.com/2013/11/21/londons-green-belt)

The planning system does affect urban form…



- Similar densities
- Less restrictive planning associated with more sprawl…

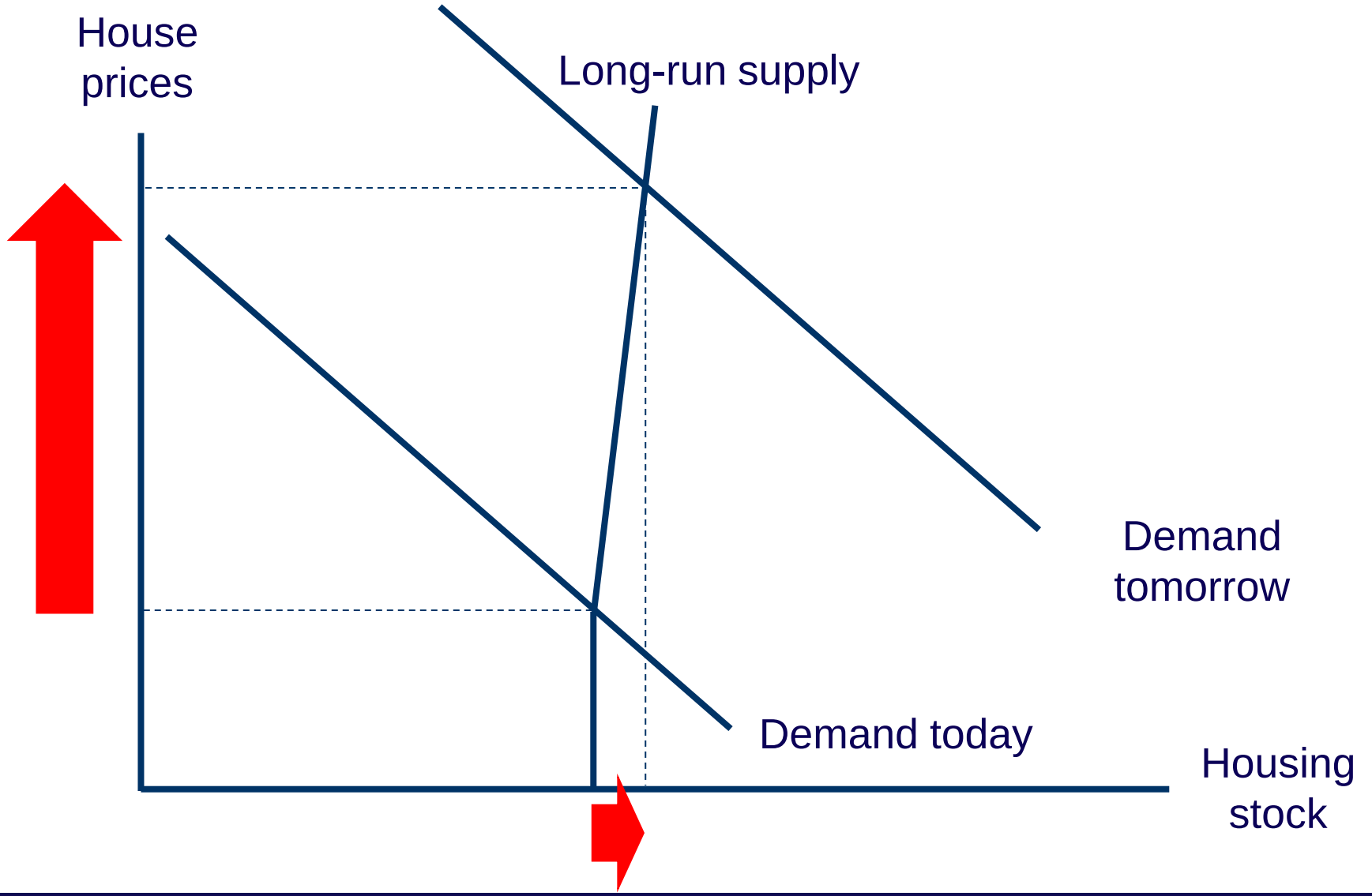
Source: Echenique (2009)

Who decides in UK?

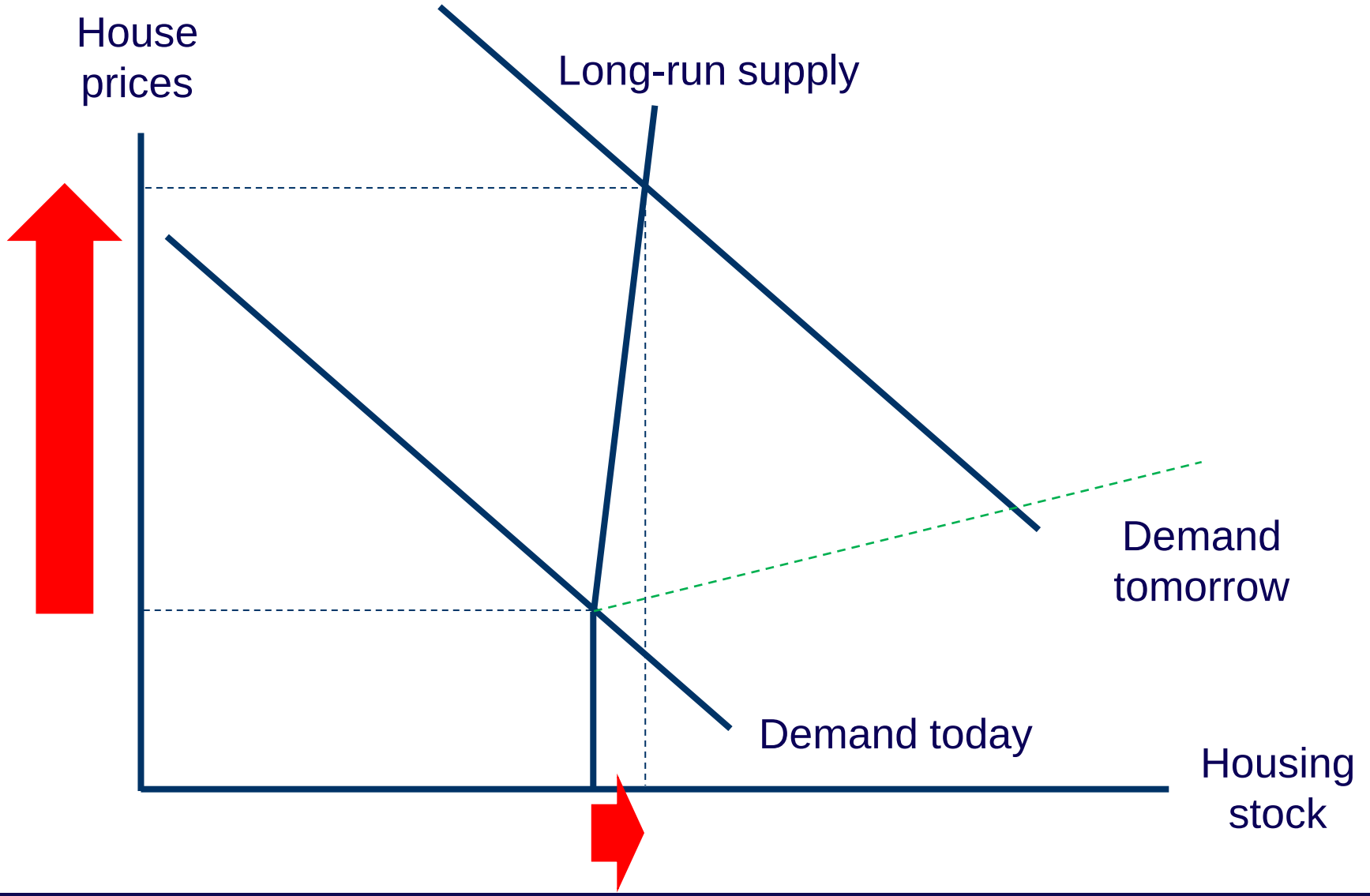
- **Local Planning Authorities (LPAs) grant or reject planning applications**
  - Problem: Since 1947 virtually no fiscal incentives at local level to permit development (costs far exceed benefits)
  - Government reforms since 2010 not (yet) 'biting'
- **Underlying causes?**
  - UK = highly centralized country, virtually no fiscal power at local level
  - Political power tilted towards homeowners (NIMBYs or better: BANANAs)

⇨ **Local long-run supply curve nearly vertical…**

Theoretical prediction…



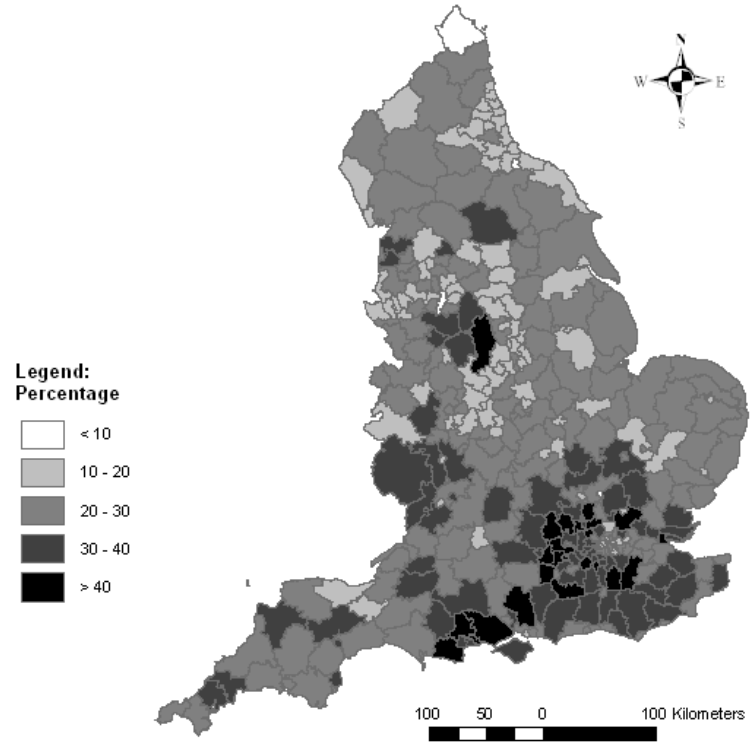
Theoretical prediction…

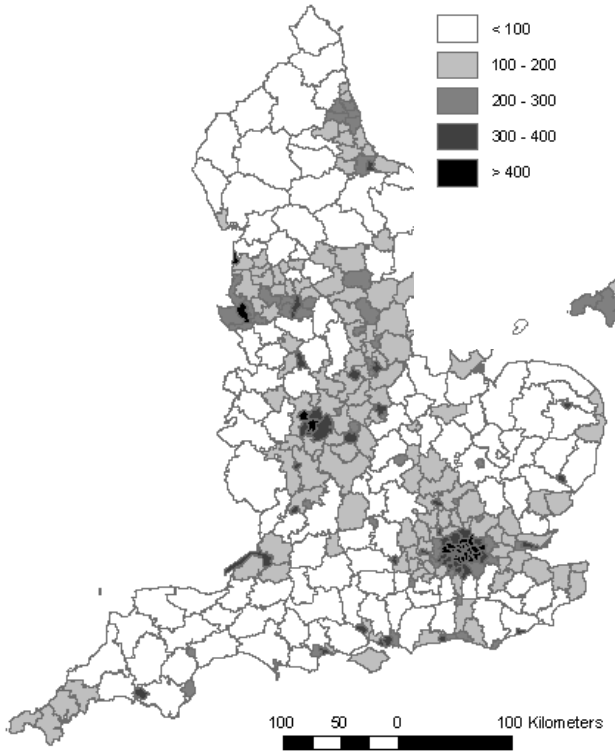


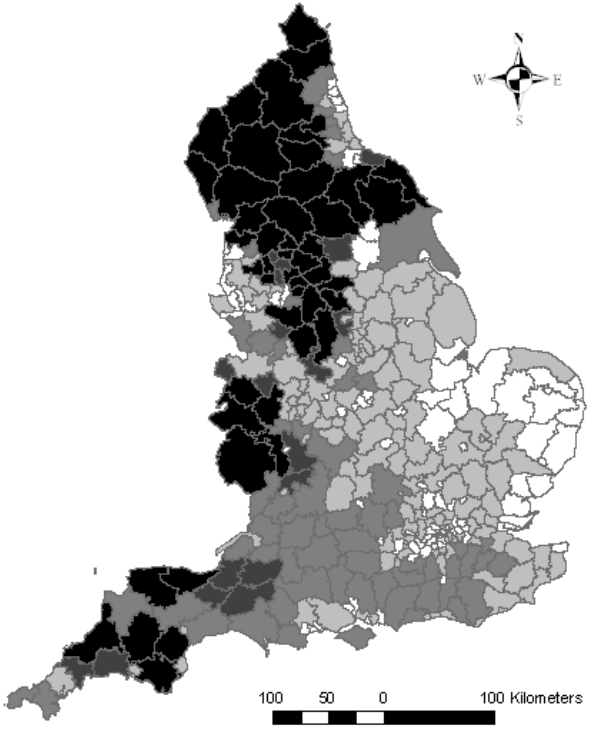
How to test?

- ***Hilber and Vermeulen (2010, 2013)***
  - Exploit spatial variation in three different types of supply constraints (regulatory, scarcity of developable land and topography)
  - Interact supply constraints with demand shifters (local earnings)
  - Use instrumental variable technique to identify causal effect of local supply constraints measures on local house prices

Average refusal rate (major residential projects) 1979-2008	Share developable land developed, 1990	Elevation range







Source: Hilber and Vermeulen (2013)

Main findings

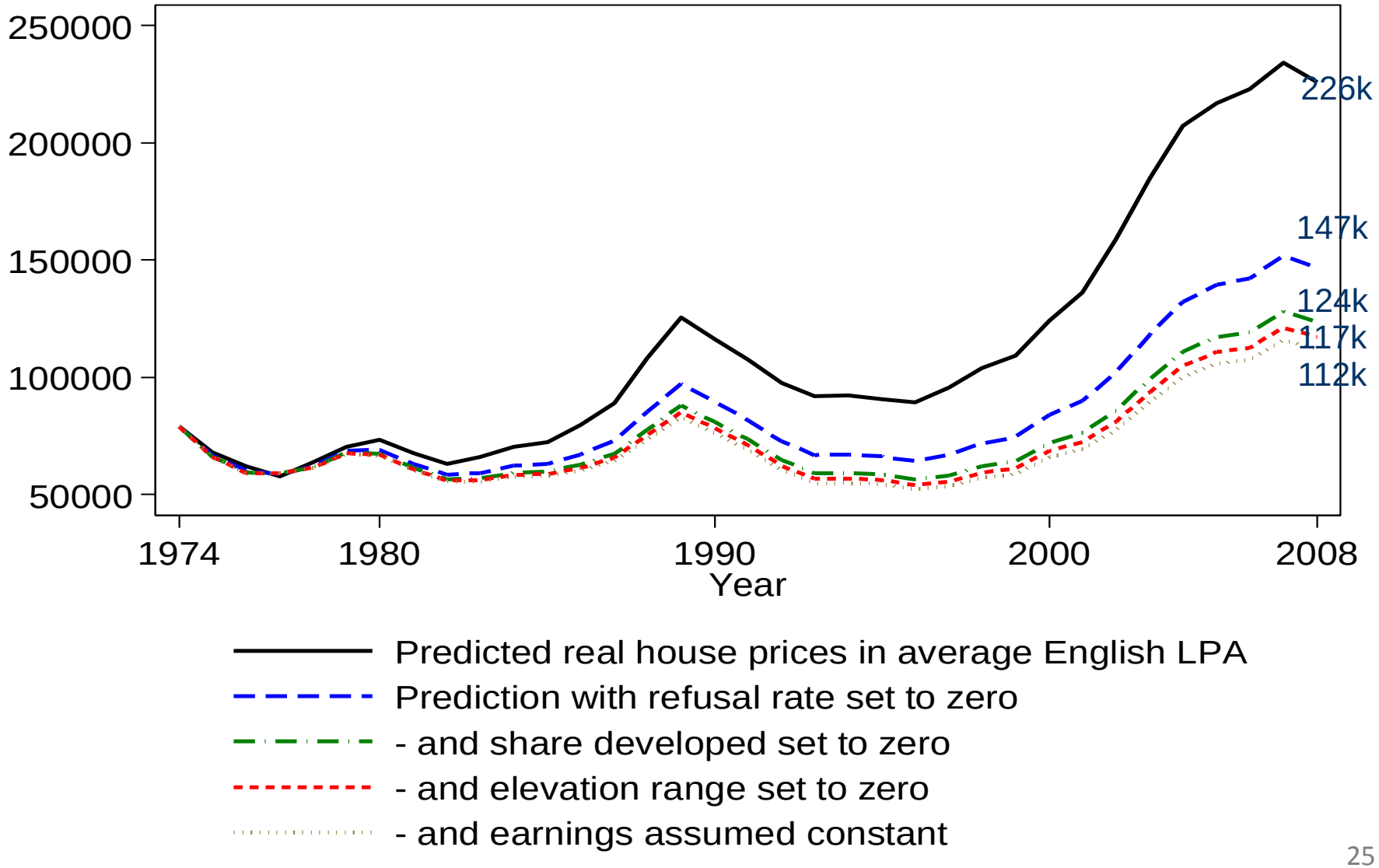
- **Tight local planning constraints in parts of England (in conjunction with strong demand) are to a good extent responsible for extraordinarily high house prices**
- **Local scarcity of developable land matters but very non-linearly (only in most developed locations)**
- **Topography matters in statistical sense but very little in economic (quantitative) sense…**

Quantitative effects (based on IV with *all* instruments)

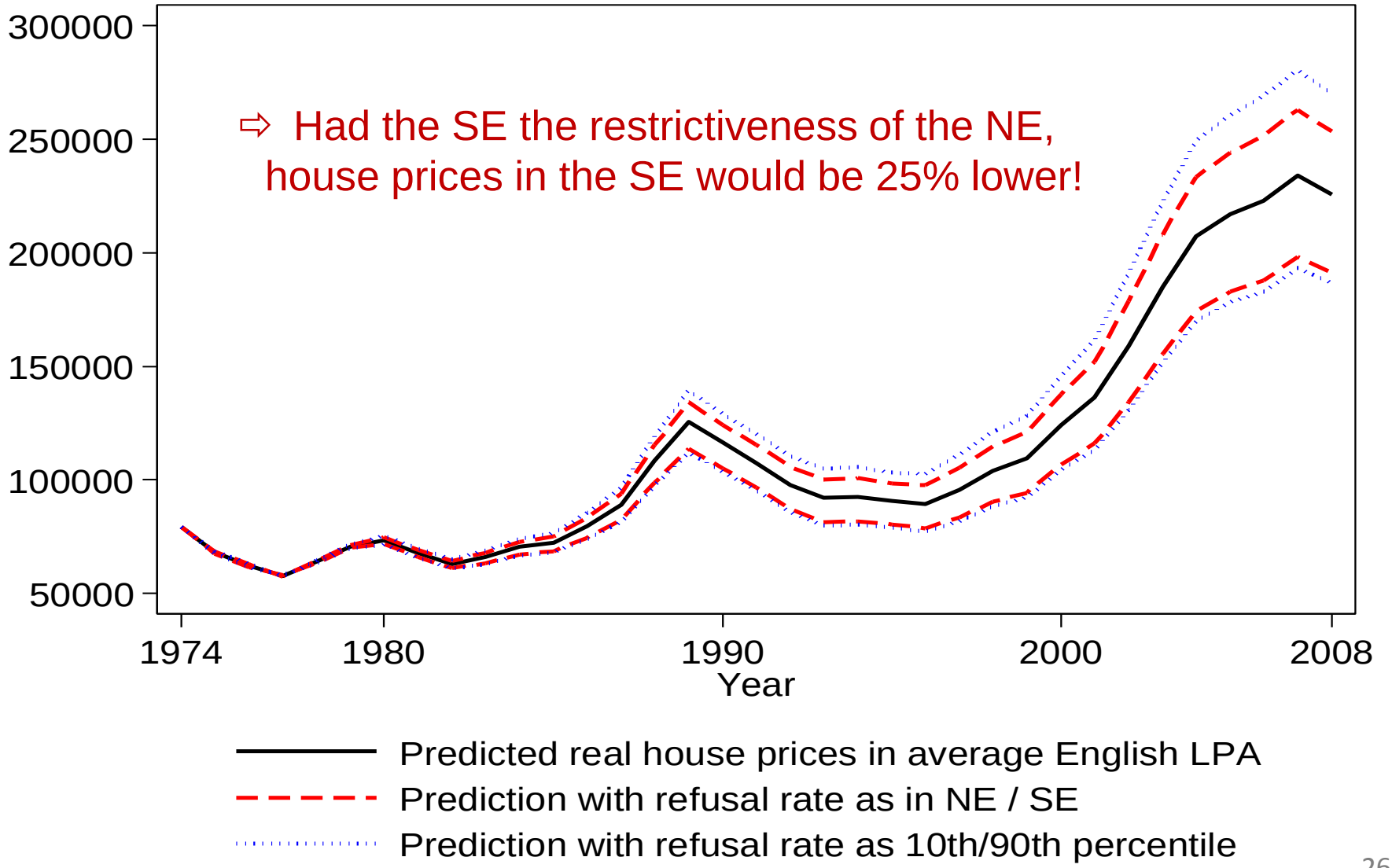
- **If planning were completely relaxed in *average LPA*:**
  - House prices in *average LPA*: -35%
- ***and* developable land were abundant:**
  - House prices in *average LPA*: -45% (Δ= -10%)
- ***and* LPA were completely flat:**
  - House prices in *average LPA*: -48% (Δ= -3%)

Note: These are likely lower bound estimates for a number of reasons

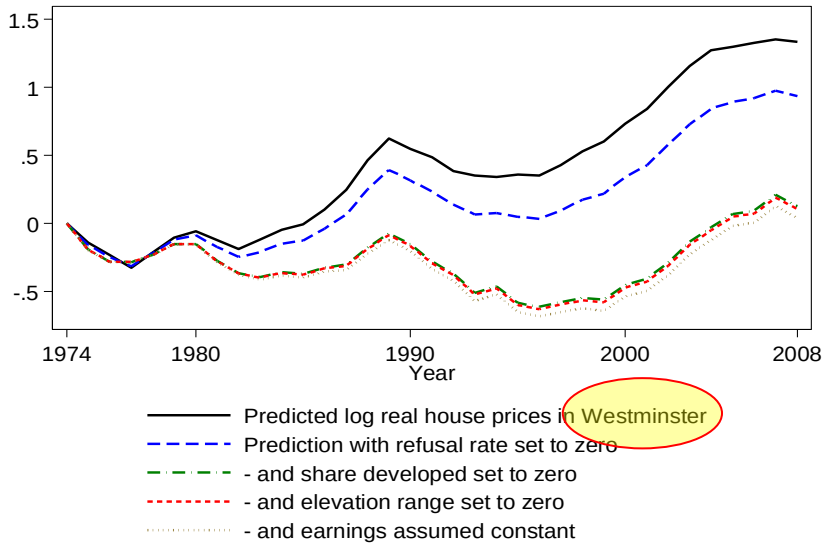
What would house prices in average English LPA be if…

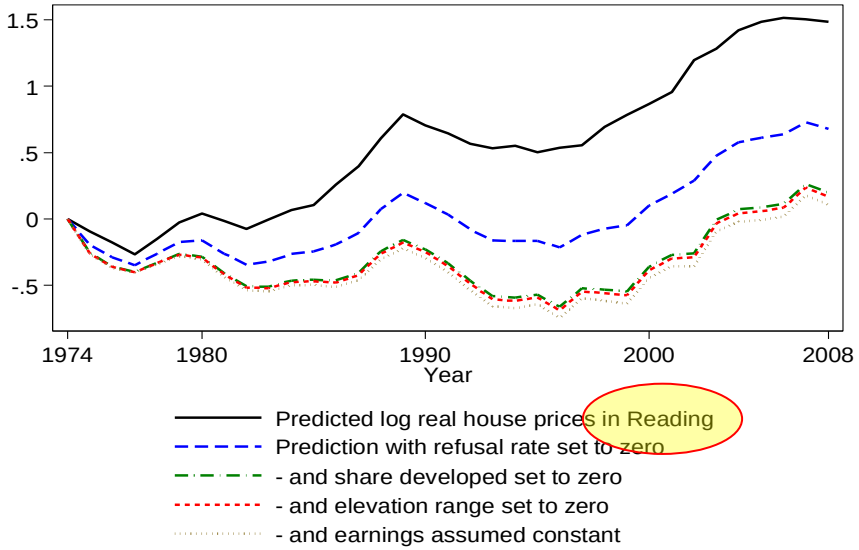


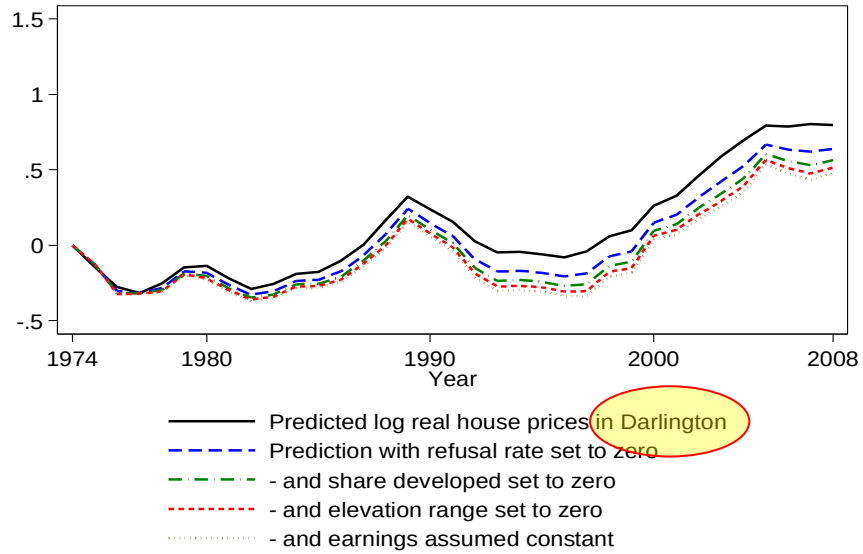
North East *vs.* South East & 90th *vs.* 10th percentile

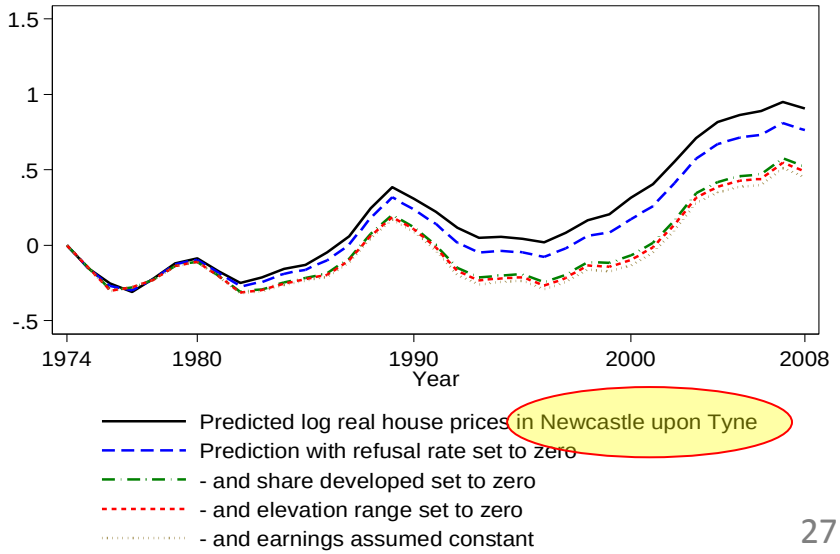


But large variation across locations…





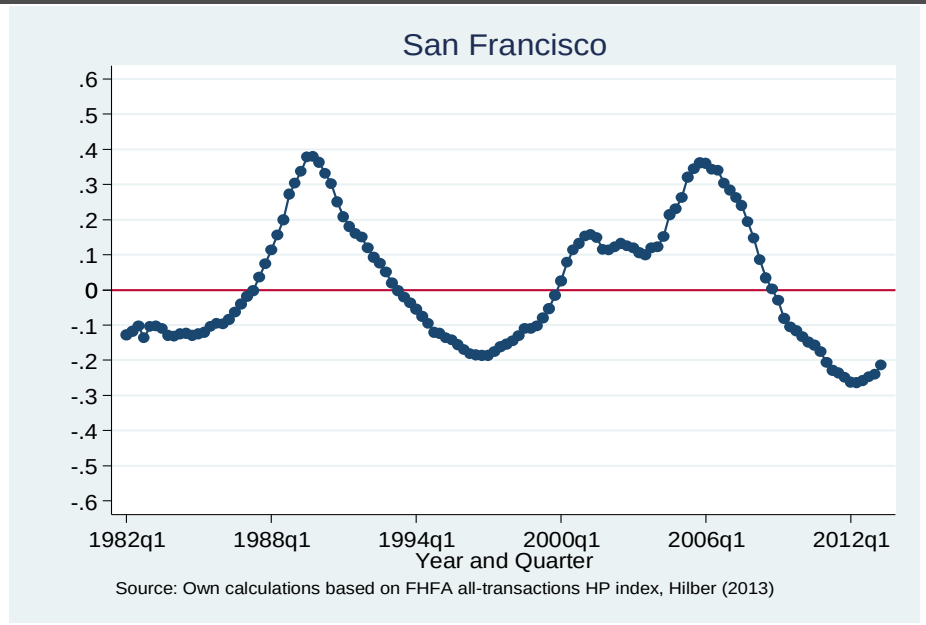




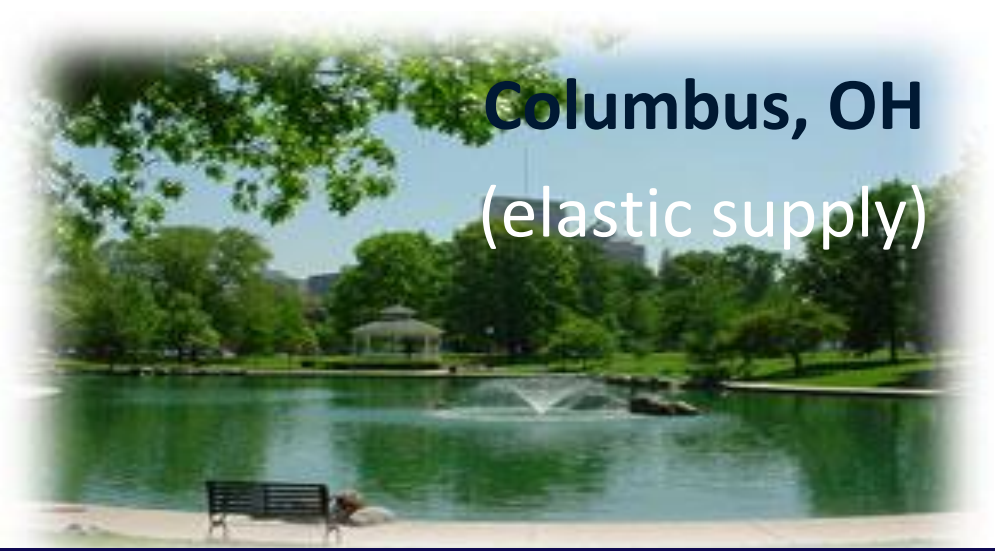
Evidence from another country with tightly and little regulated cities…

San Francisco, CA

(inelastic supply & volatile demand)

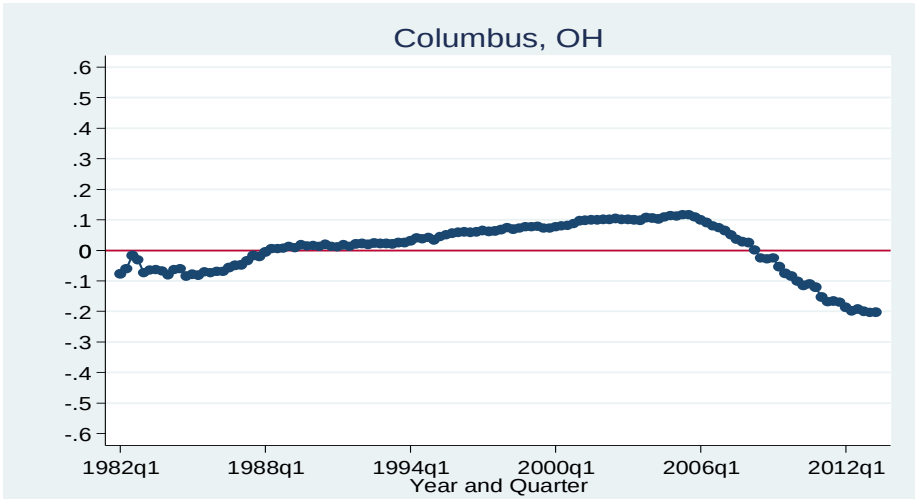


Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)



Columbus, OH

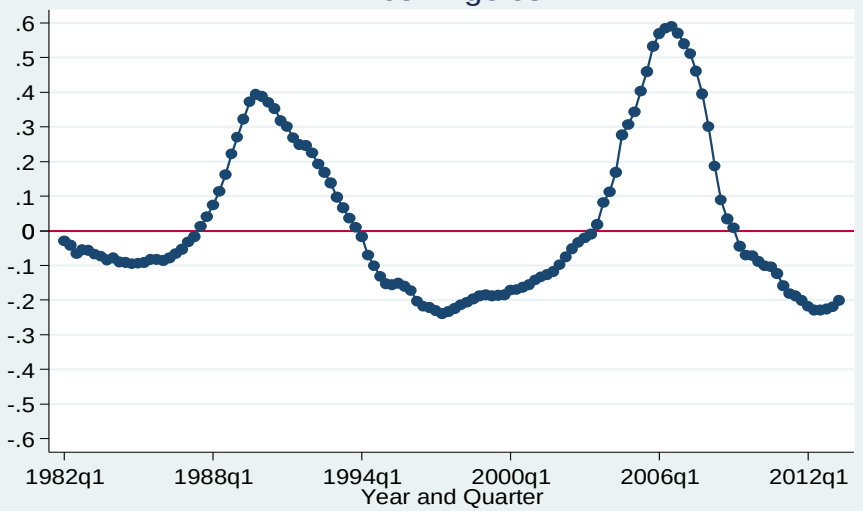
(elastic supply)



Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)

And another example

Los Angeles
(inelastic supply & volatile demand)



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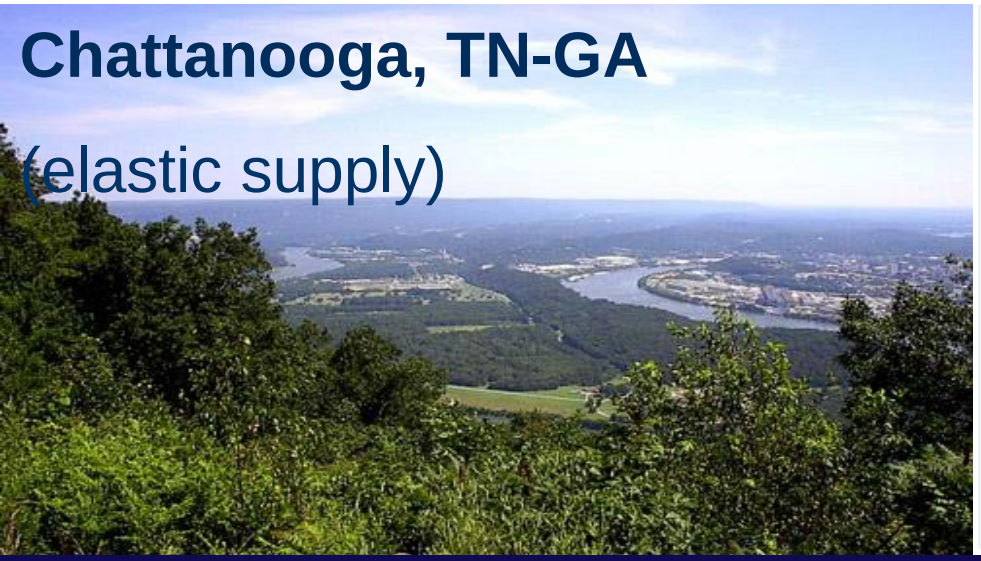
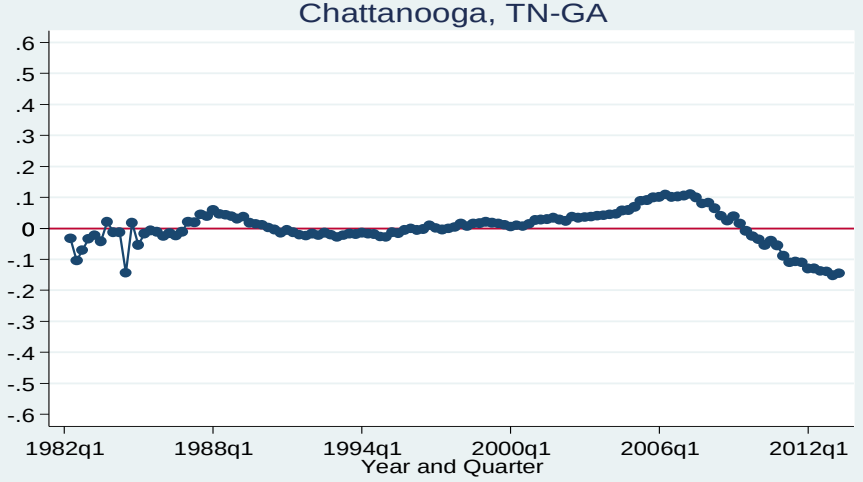


Chattanooga, TN-GA

(elastic supply)



Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)

And based on deviation of HP from 50q past-trend HP…

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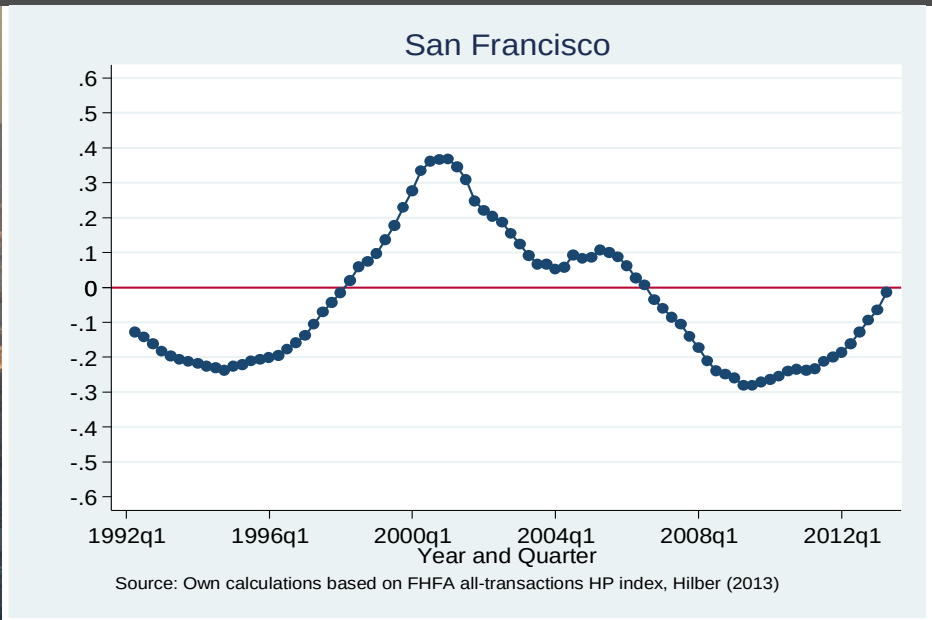
(inelastic supply & volatile demand)



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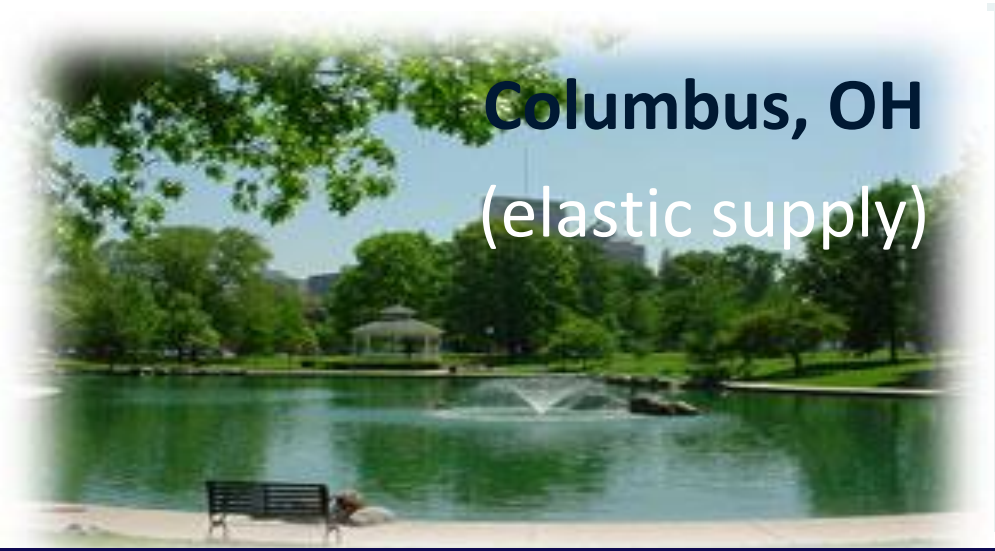

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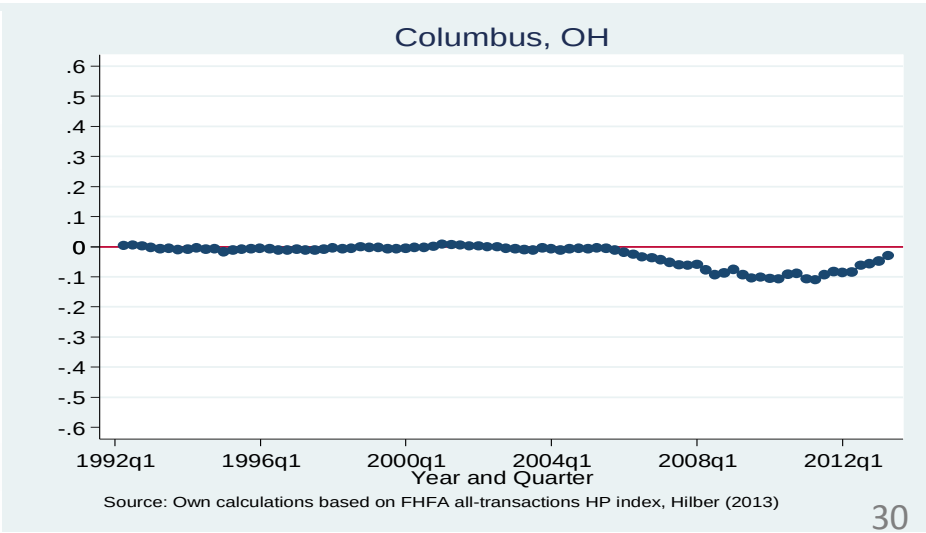
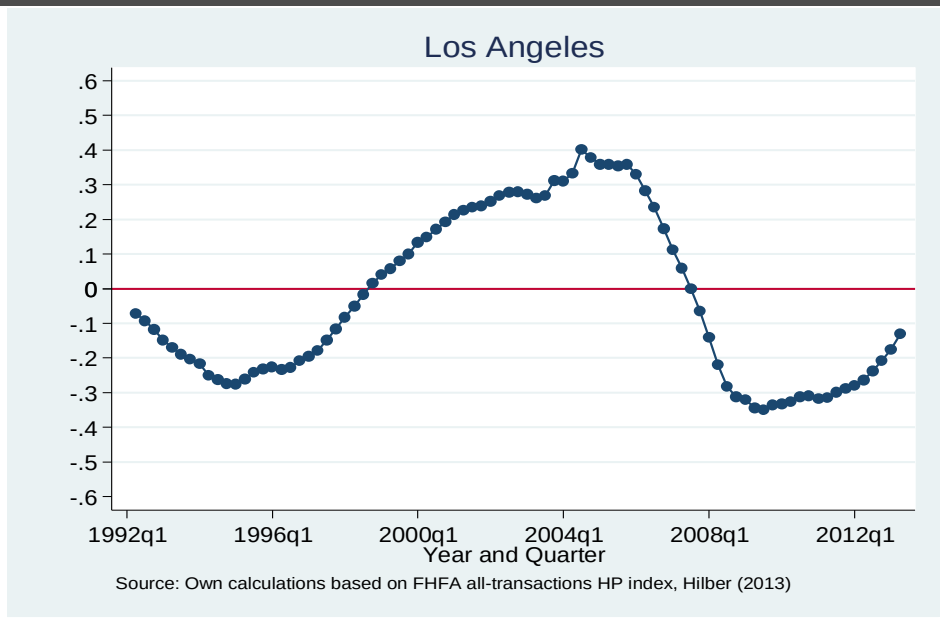


Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)

Deviation of HP from 50q past-trend HP…

Los Angeles
(inelastic supply & volatile demand)



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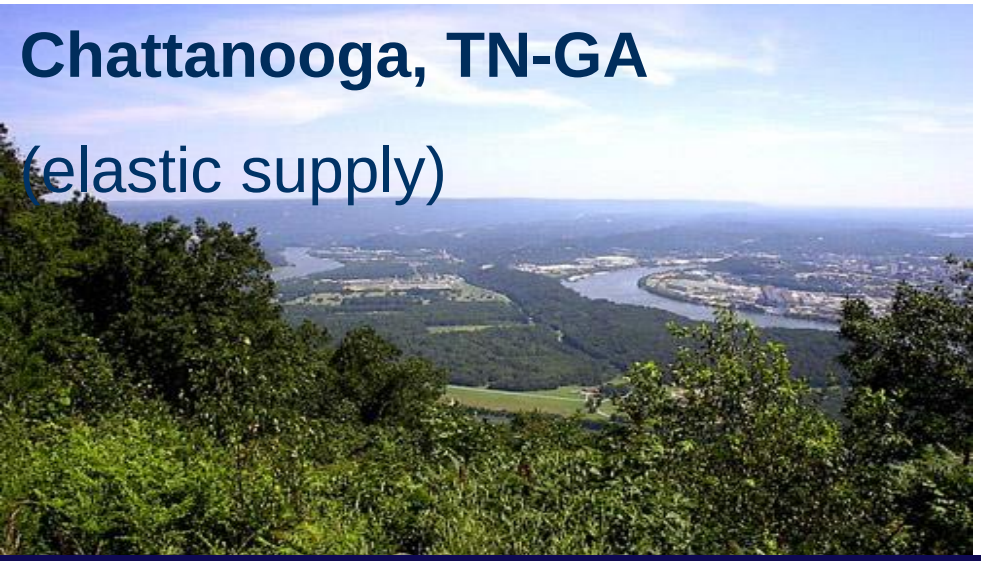

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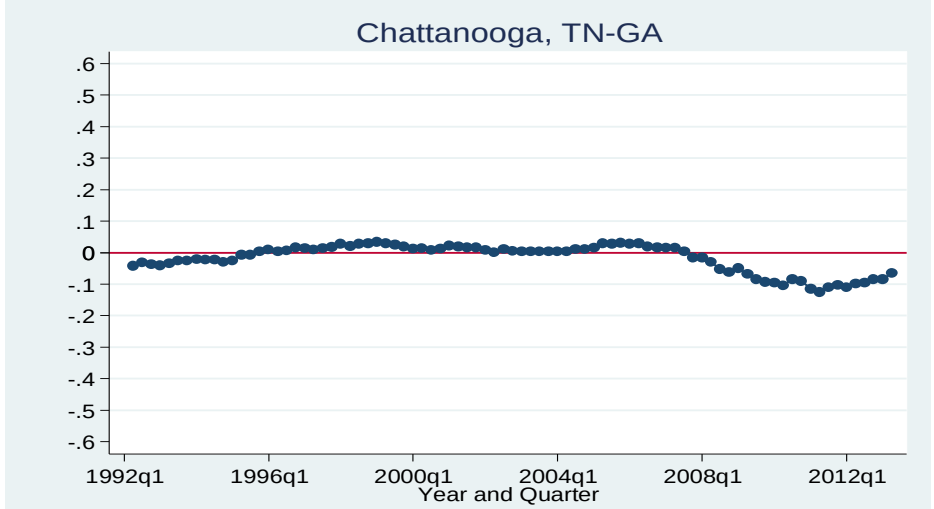


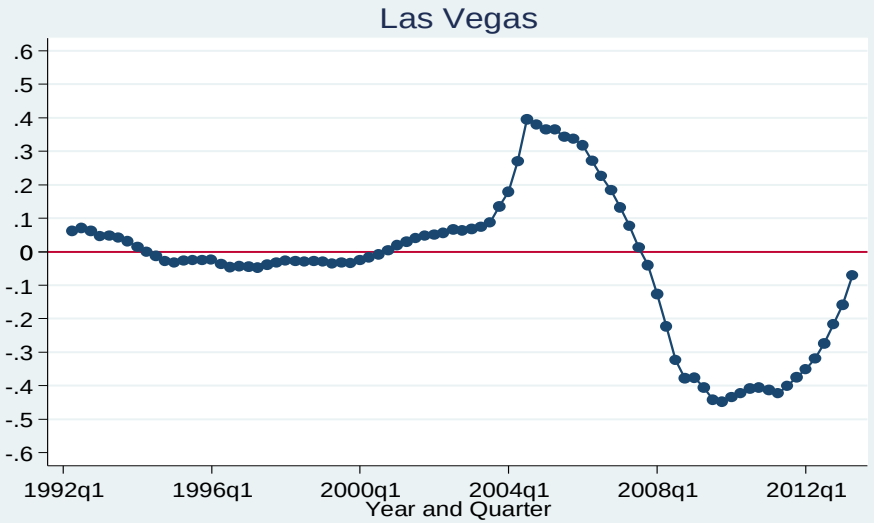
Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)

But boom and bust also in places with elastic supply…

- **Ireland for example underwent massive house price *and* construction boom**
  - Followed by extensive price bust, high vacancy rates etc.
- **Unlikely caused by restrictive long-run supply…**
  - Bust in Ireland characterized by massive 'over-supply' and high vacancy rates
  - 'More severe bust than boom'

⇨ **Rather resembles boom and bust in Dallas and Houston in 1980s or Las Vegas and Phoenix during the 2000s…**

The Puzzle…



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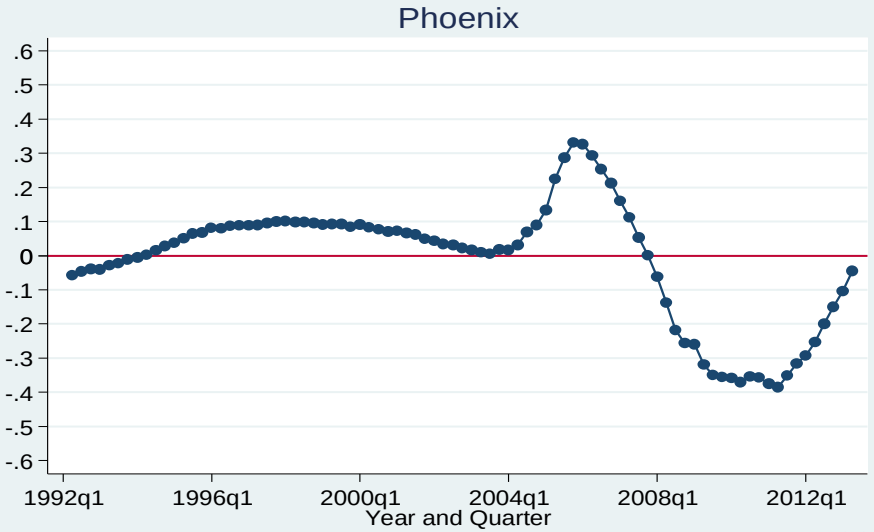
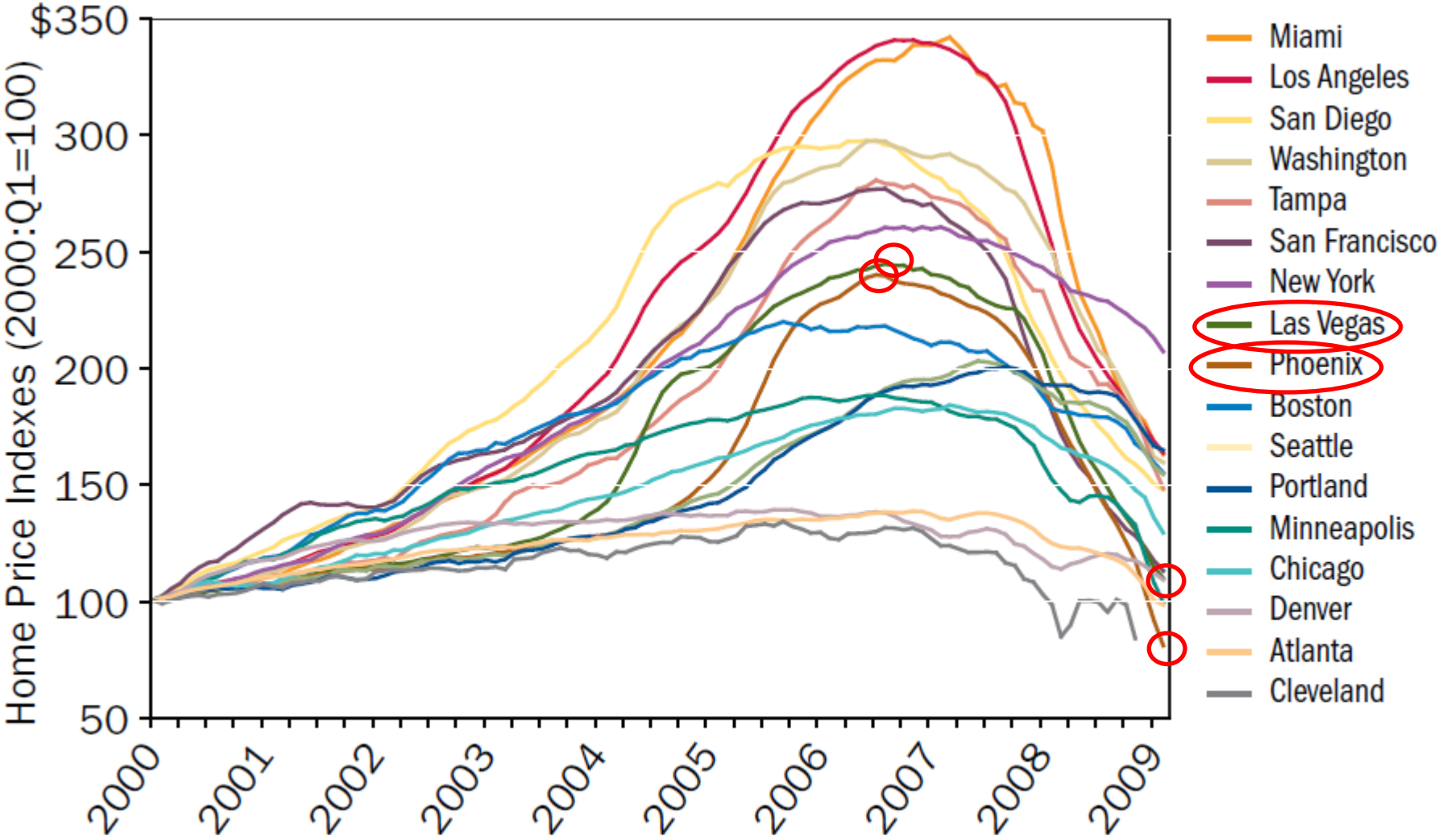


Source: Own calculations based on FHFA all-transactions HP index, Hilber (2013)

Low tier sales prices in Las Vegas and Phoenix and 15 other US MSAs



Source: K.E. Case, in Land Lines (Lincoln Institute), pp. 8-13,
http://www.lincolninst.edu/pubs/1743_Land-Lines-January-2010

So what might have happened in Ireland?

- **Extraordinarily strong demand boost during 1990s and until mid 2000s** ("Celtic Tiger years")
- **Supply not sufficiently responsive in short-run** (due to planning and construction lags)

⇨ **House prices start rising significantly**

- **"Myopic" agents start forming unrealistic expectations about future price rises**

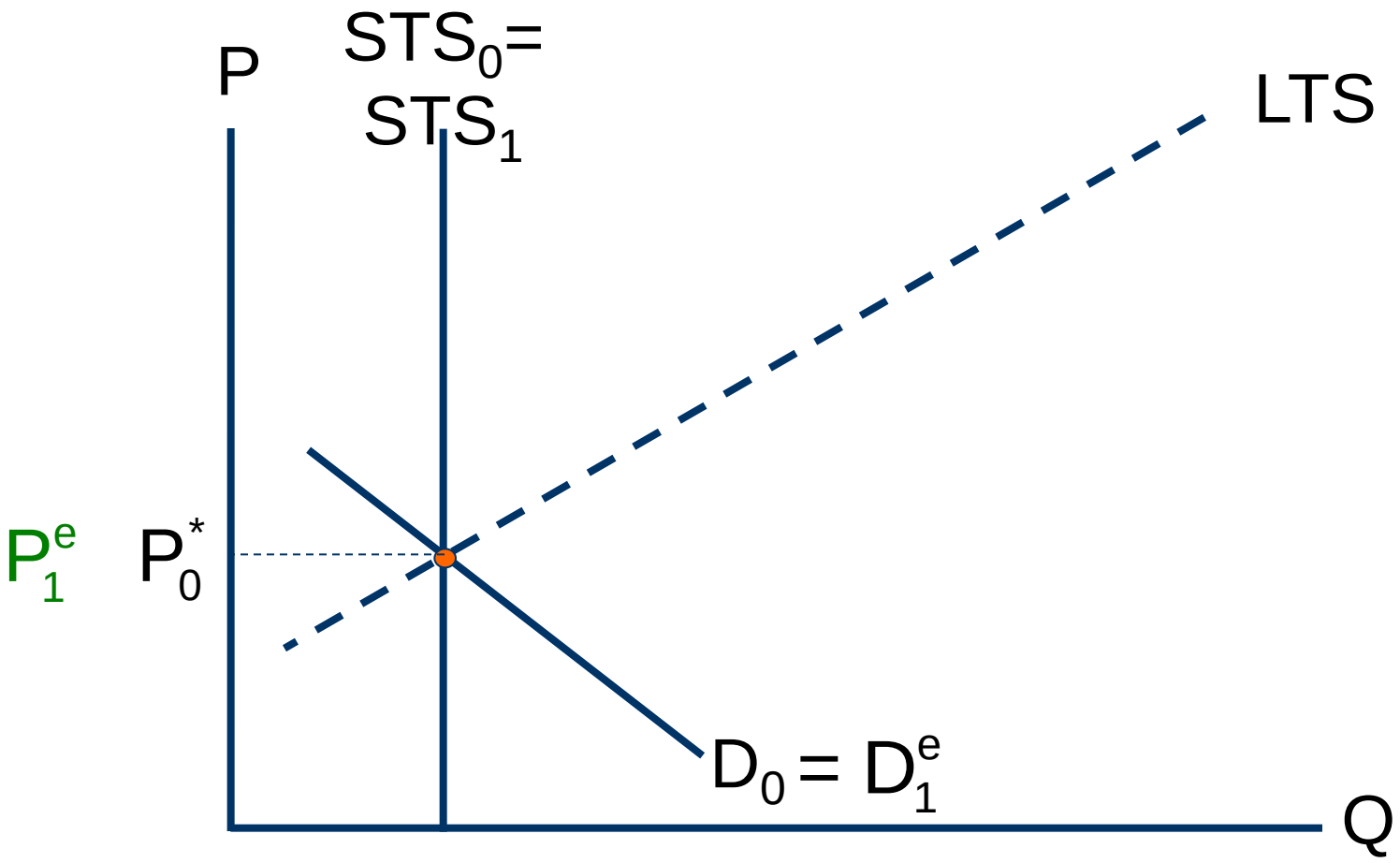
⇨ **If supply is elastic in the longer-run (unlike in UK): Construction boom**

- **Then 'great recession' hits and triggers bust phase with massive declines in house prices, vacancies, defaults & follow-on effects**
  - Similar 'stories' in LV & Phoenix *(DeFusco et al., 2013)*

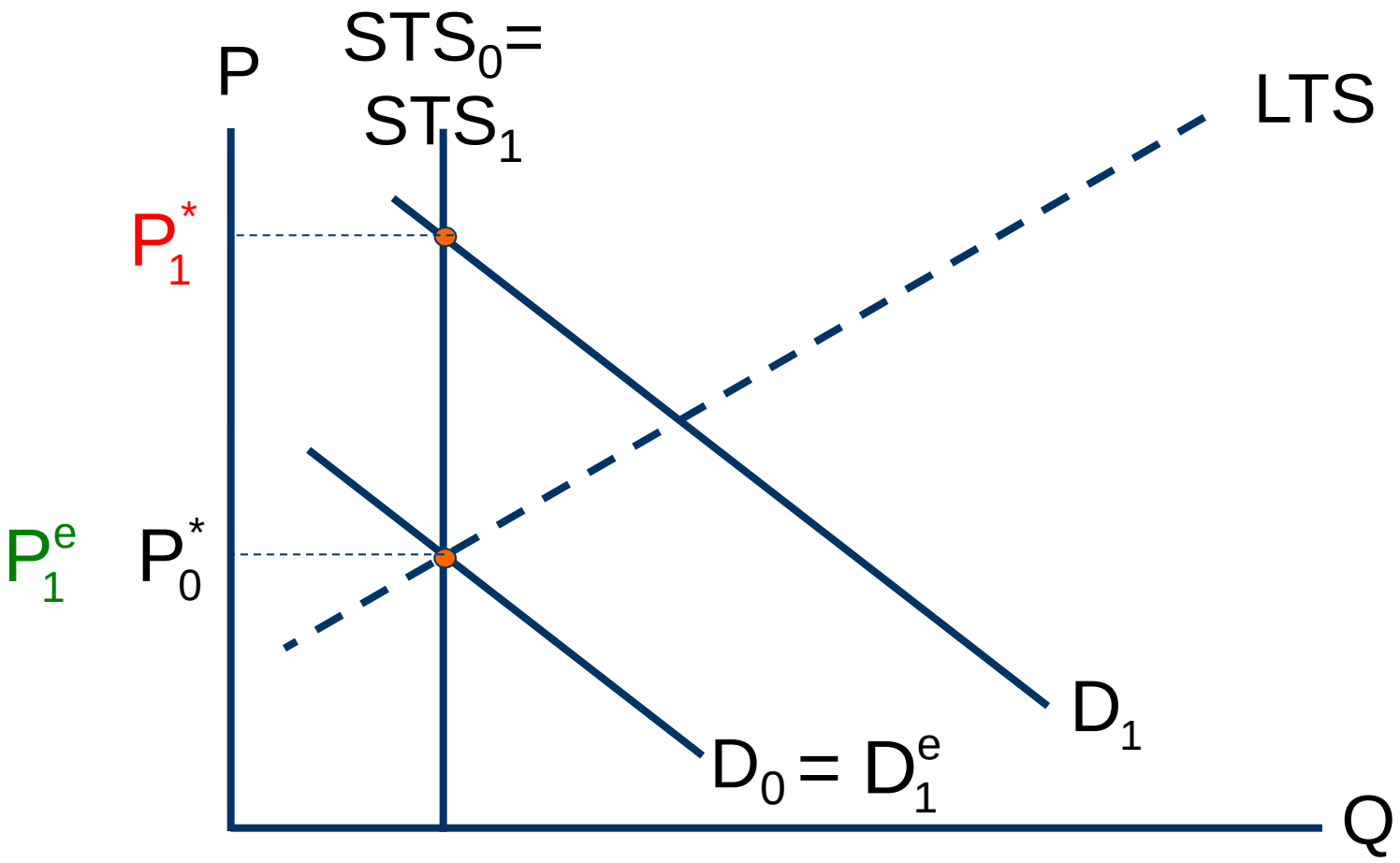
What about Dublin?

- **Dublin appears to have tight regulatory constraints (including restrictive height controls)**
  - Political-economical equilibrium probably tilted towards owners of developed land who are dominant in Dublin and who have incentive to oppose new development (similar to London, SF, LA) *(Hilber and Robert-Nicoud, 2013)*
- **Rest of Ireland appears to have elastic long-run supply**
  - Owners of undeveloped land/developers of such land (who benefit from permission to develop) are arguably politically very influential relative to owners of developed land *(Hilber and Robert-Nicoud, 2013)*
  - This in combination with the common occurrence of corruption arguably lead to construction boom outside Dublin

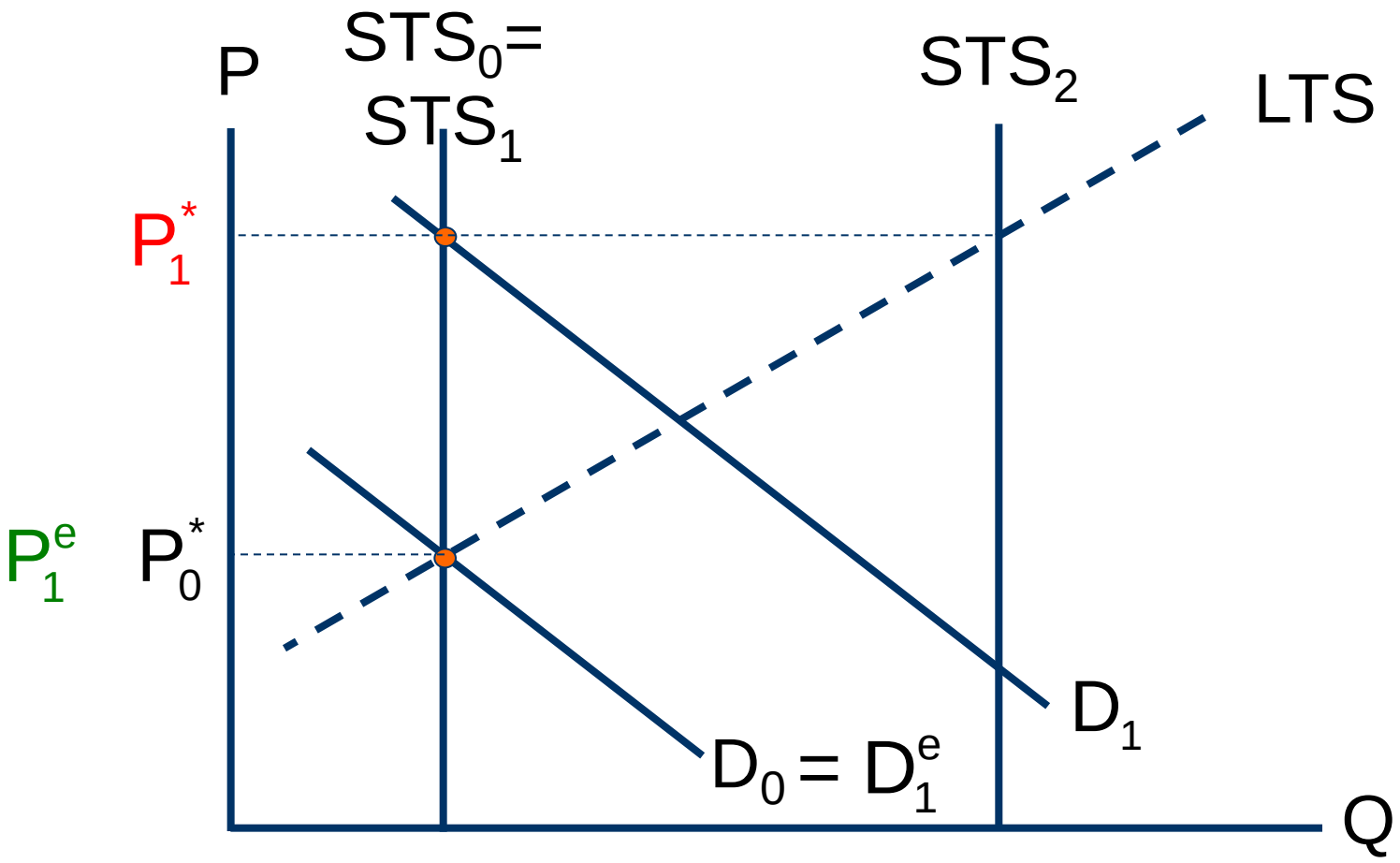
A stylized explanation…



Unexpected initial demand boost → Price increase due to inelastic short-run supply (lags!)



Myopic (and/or) exuberant agents & elastic long-run supply cause construction boom



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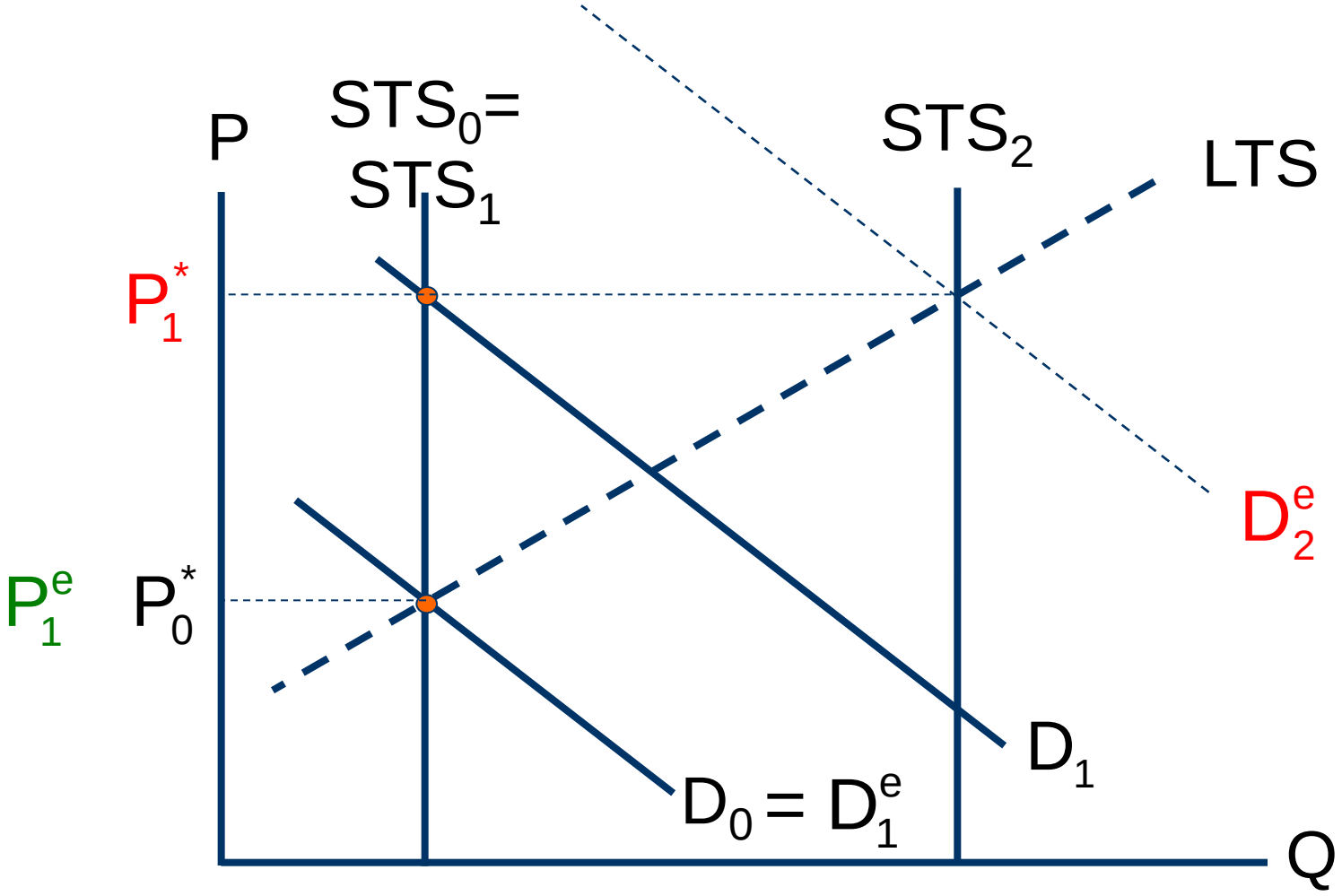
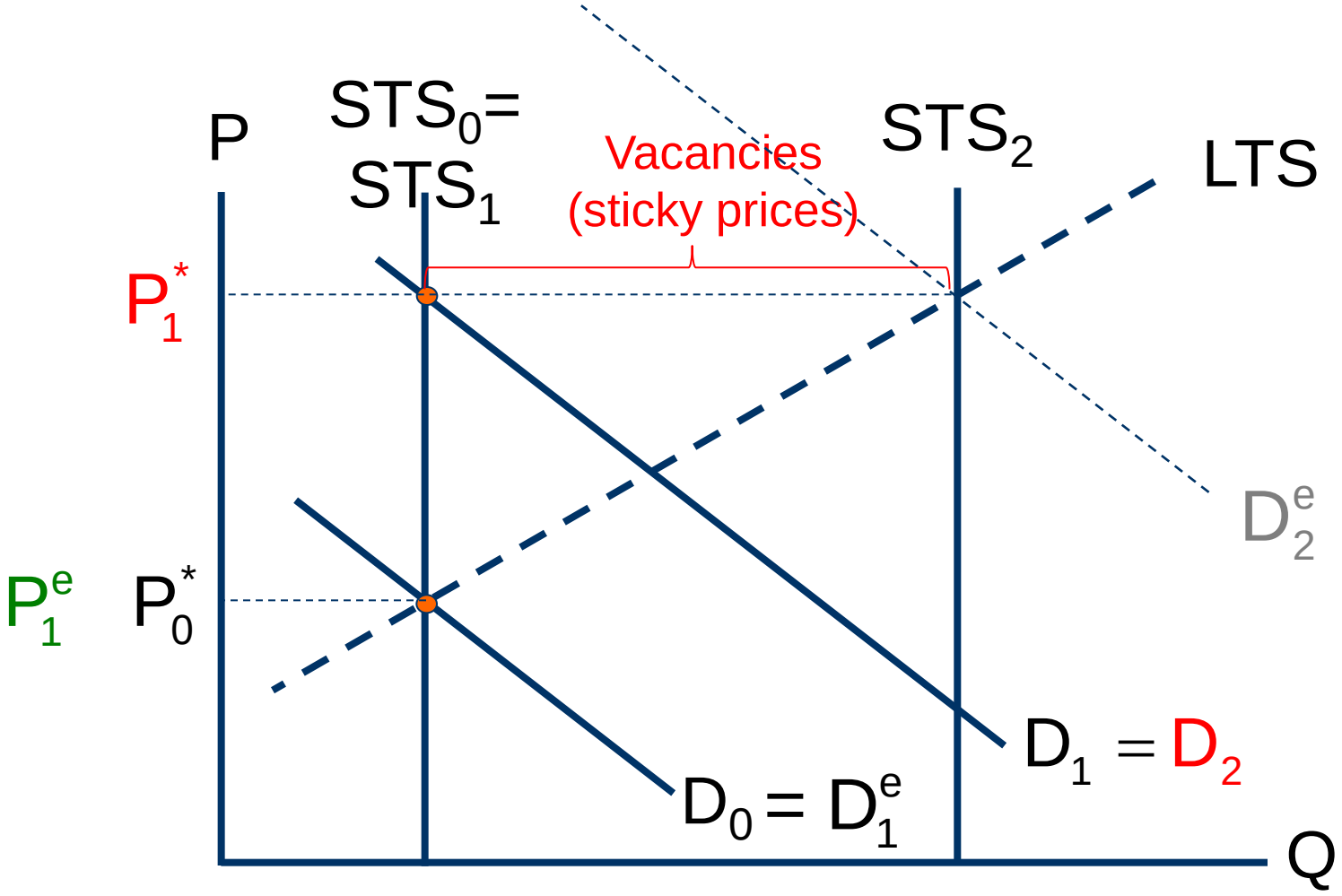
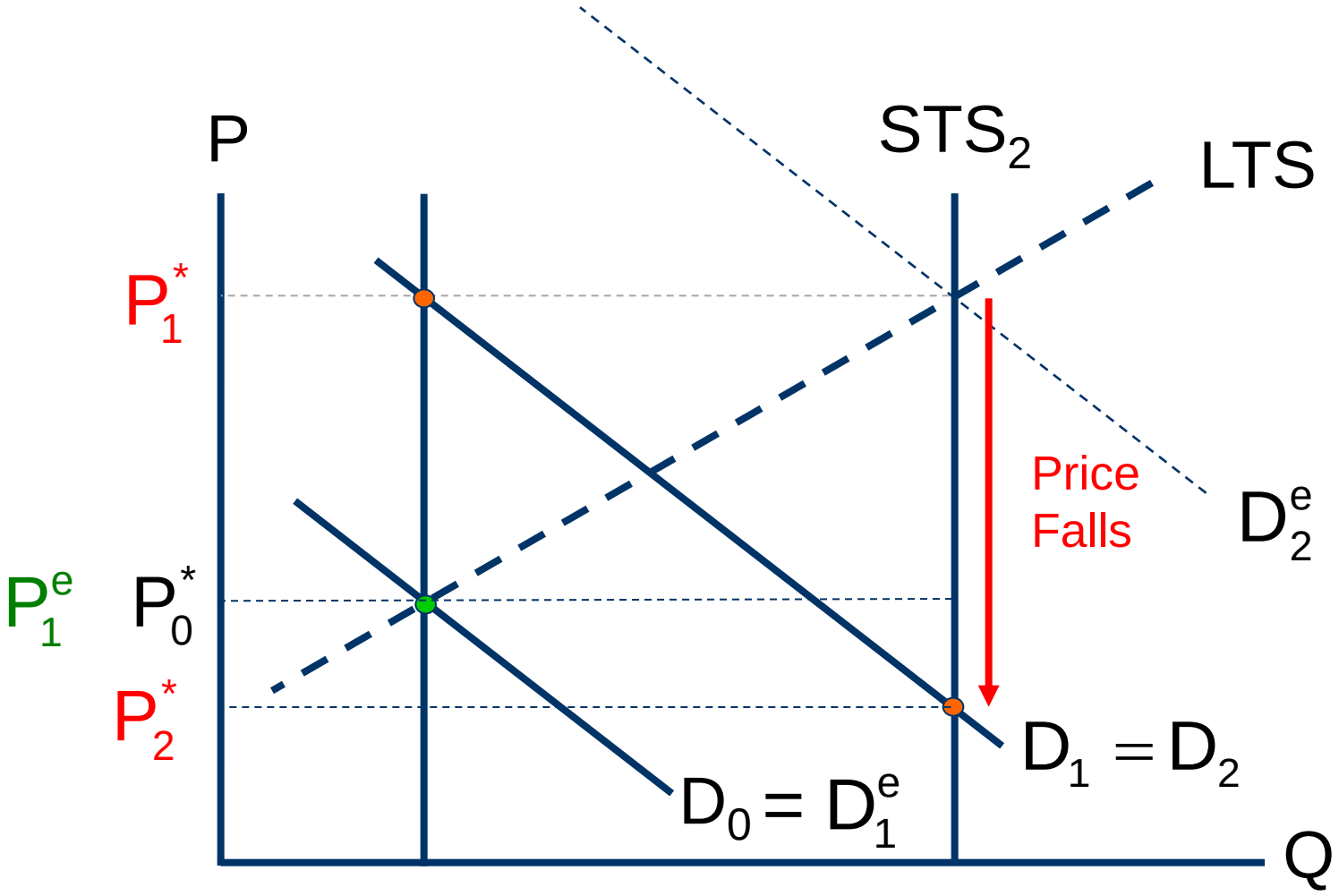


Bust phase (triggered by negative shock) can lead to over-supply/ high vacancies…



…and eventually massive price decline (unlike in UK!)



- **What about impact of British planning system on retail markets and office markets?**
  - Two particularly interesting policy reforms…

Town Centre First policy

- **'Town Centre First' strictly implemented in England in 1996**
  - 'Needs test': Need to prove that more shopping space is 'needed' locally
  - 'Sequential test': Need to prove no more central site is available

⇨ **Made major out-of-town retail shopping in England difficult after 1988 and all but impossible after 1996**

⇨ **Put differently: Location and site-selection effectively 'micro-managed' by planners rather than supermarket chains…**

Economic consequence?

- **Exploiting a DiD-type setting, our estimates suggest that TCF policies imposed loss of output of some 32% on stores that opened in England after 1996 compared to stores that opened prior to 1988** *(Cheshire et al., 2013)*

Last example: Nationalisation of 'business rate'

- **In 1990 Thatcher's government converted the commercial property tax from a local to a national basis**
  - Removing any fiscal incentives at local level to permit commercial development
- **Economic consequences?**
  - Removal of fiscal incentives made supply of office space inelastic (no more incentives to approve developments)
  - Estimates suggest "regulatory tax" imposed on commercial firms in form of higher office space prices far exceeded revenue from business rate *(Cheshire and Hilber, 2008)*

⇨ **The law of unintended consequences is powerful indeed…**

Conclusions

- **Planning serves important purpose - in principle it can improve welfare through correcting market failure such as externalities and public goods**

- **But difficult to design system that strikes right balance**
  - British system far too restrictive, but more flexible systems also have their downsides
  - Irish system seemingly did not get balance right either…

⇨ **So, how should ideal system look like?**

Some guiding principles: The ideal planning system should…

1. **Focus on correcting market failures (externalities, public goods) that are endemic in land markets**
2. **Work with the grain of the markets**
   - Planners ought not micro-manage location choices or specific site selection *(Cheshire et al., 2013)*
   - Planners ought to take into account price signals (rather than ignore them) *(Cheshire and Sheppard, 2005)*
3. **Align incentives**
   - Those who bear the costs of development should also reap the benefits *(Hilber and Vermeulen 2010, 2013)*
   - Possible tools: impact fees (reflecting marginal social costs), genuine local property tax (& get rid of stamp duty) *(Hilber and Lyytikäinen, 2013; Mirrlees et al., 2011)*

One last point…

- **In order to tackle 'affordability problem', policy makers tend to endorse policies that boost housing demand, especially demand for owner-occupied housing**
  - Help to buy *(in UK)*
  - Mortgage interest deduction *(in US and elsewhere)*
  - No capital gains tax and no inheritance tax on principal owner-occupied dwelling *(almost anywhere)*
- **In places with tight regulatory constraints like in Britain, this merely increases house prices further making owner-occupied housing less – not more – affordable for young-would-be buyers** *(Hilber and Turner, forthcoming; Hilber 2013)*

Q & A

Thank you!

Presentation with references & hyperlinks will be downloadable from:
http://personal.lse.ac.uk/hilber/

References (and further readings)

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