Macroeconomic developments in the Irish housing market

DATE
21st June 2018

Event
Exploring developments in the Irish housing & mortgage market

VENUE
ESRI, Whitaker Square,
Sir John Rogerson's Quay,
Dublin 2

AUTHOR
Kieran McQuinn

- First part of the housing research programme

- McQuinn K. (2017): Irish house prices: Deja vu all over again? Special article, QEC.

- Results here are an update of this paper

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Outline

- Addresses "stability" of current price levels
- Using a number of approaches
- Cross-country comparisons
- Econometric estimates of:
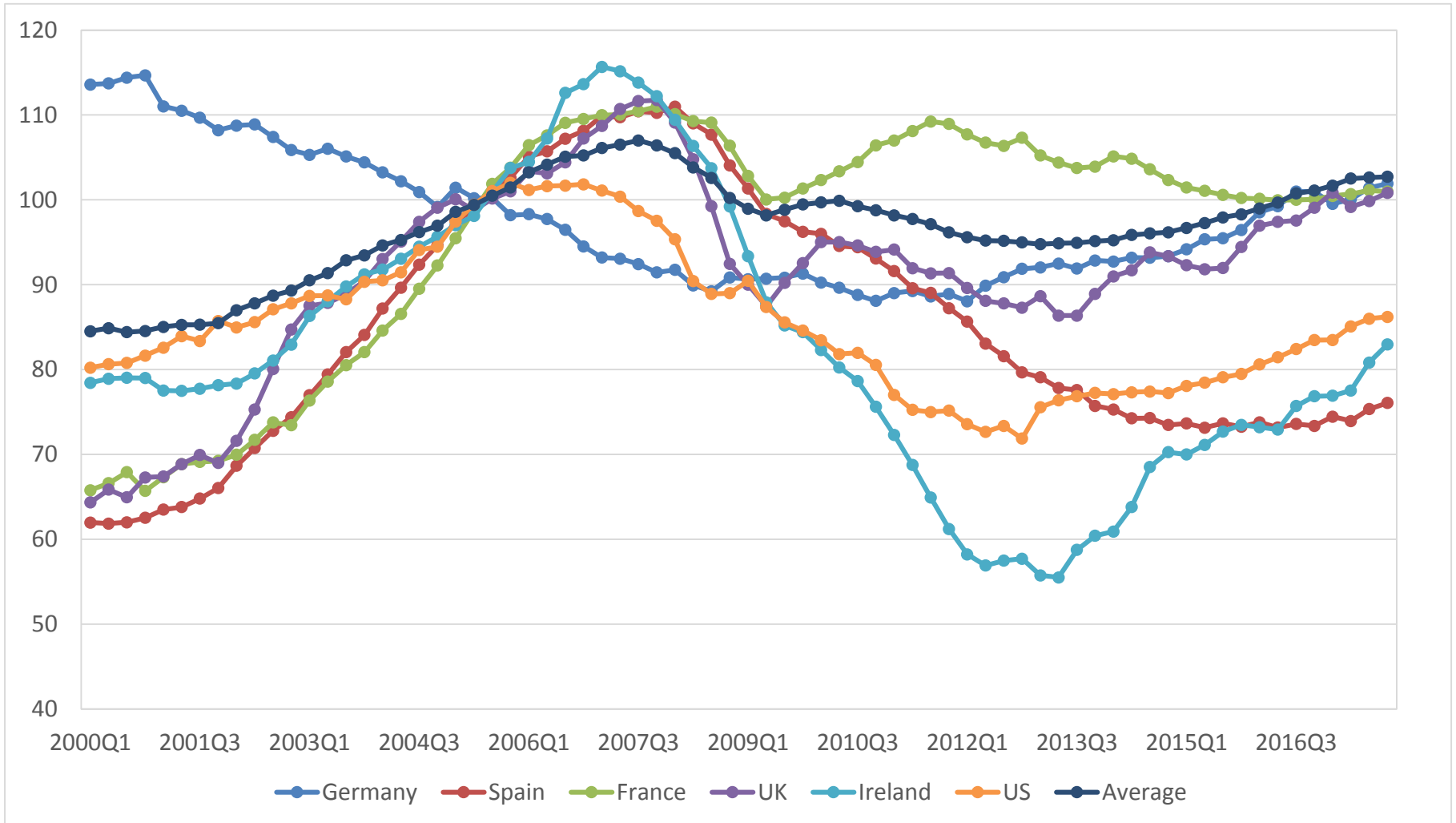   - Fundamental House Prices
- Conclusions

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Cross-country developments

Percentage Change in Nominal Cross-Country House Prices

Country	Q4 1995 – Q4 2007	Q4 2007 – Q4 2013	Q4 2013 – Q4 2017
Ireland	431	-49	57
UK	240	-7	28
Spain	199	-30	6
France	157	-1	2
US	96	-12	25
Italy	89	-16	-8
Germany	-5	13	21

Source: Federal Reserve Bank of Dallas

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

House price to disposable income ratios (2000-2017)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**
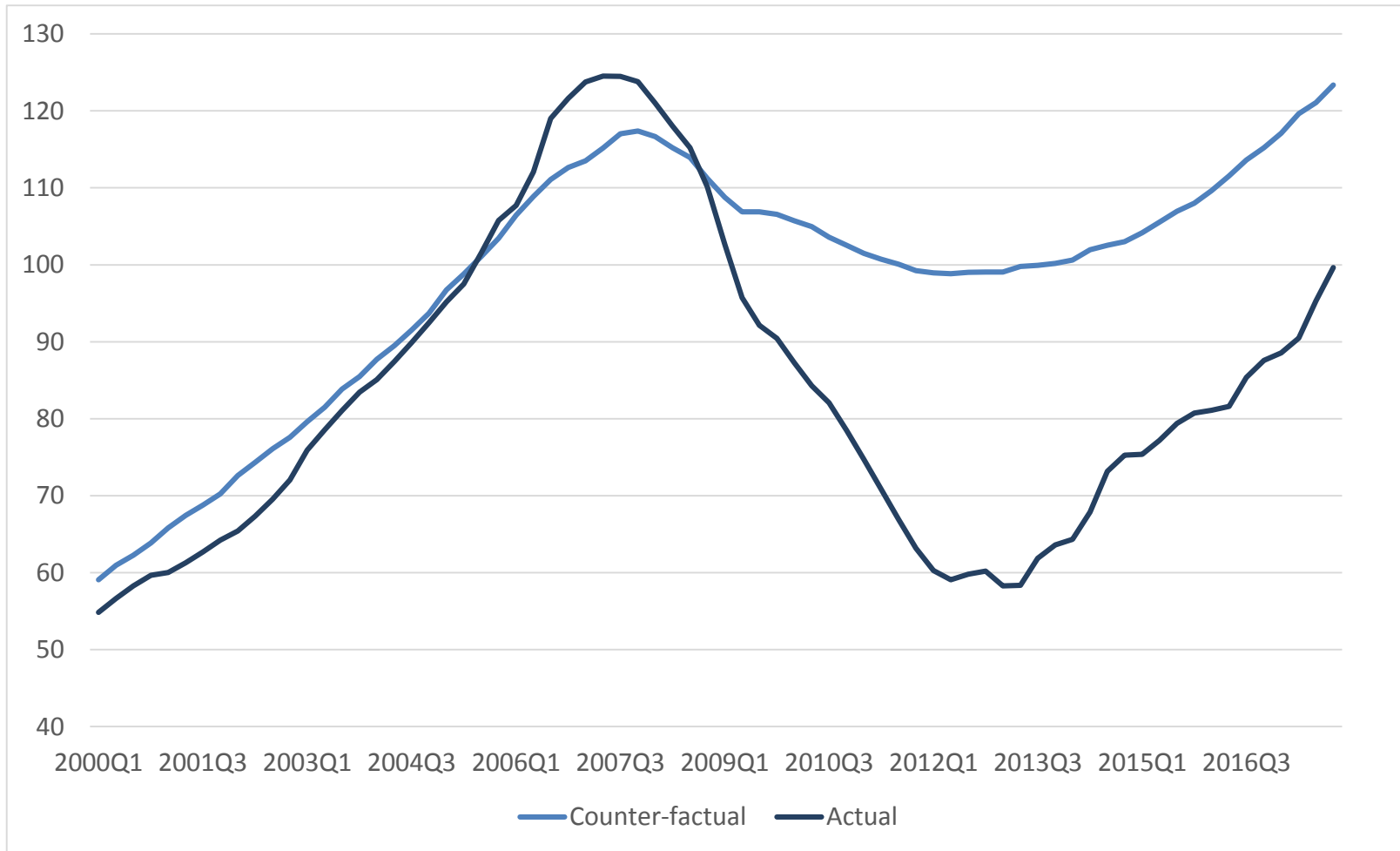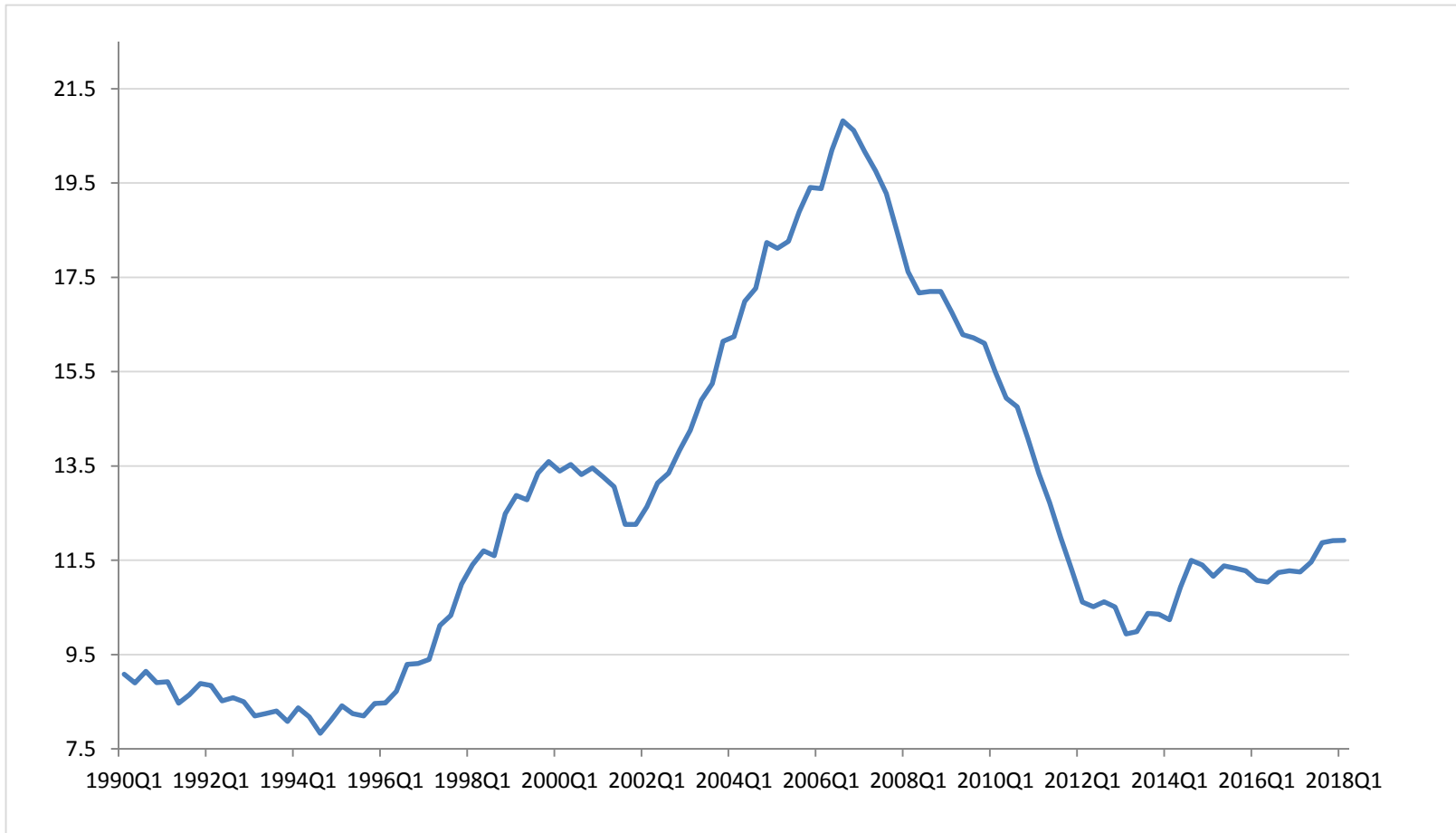
Counter-factual analysis

- Take the average cross-country ratio

- $\left[\dfrac{P_t}{I_t}\right]^A$

- Multiply it by the Irish index of disposable income

- $P_{It}^{CF} = I_{It} \times \left[\dfrac{P_t}{I_t}\right]^A$

- Scenario suggests:
  - Overvaluation in 2006/2007 period followed by
  - Undervaluation from 2008 onward

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI | ECONOMIC & SOCIAL RESEARCH INSTITUTE

Irish house prices (2000-2017)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Irish house price to rent ratio (1990 – 2018)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Comparison with certain US cities

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**
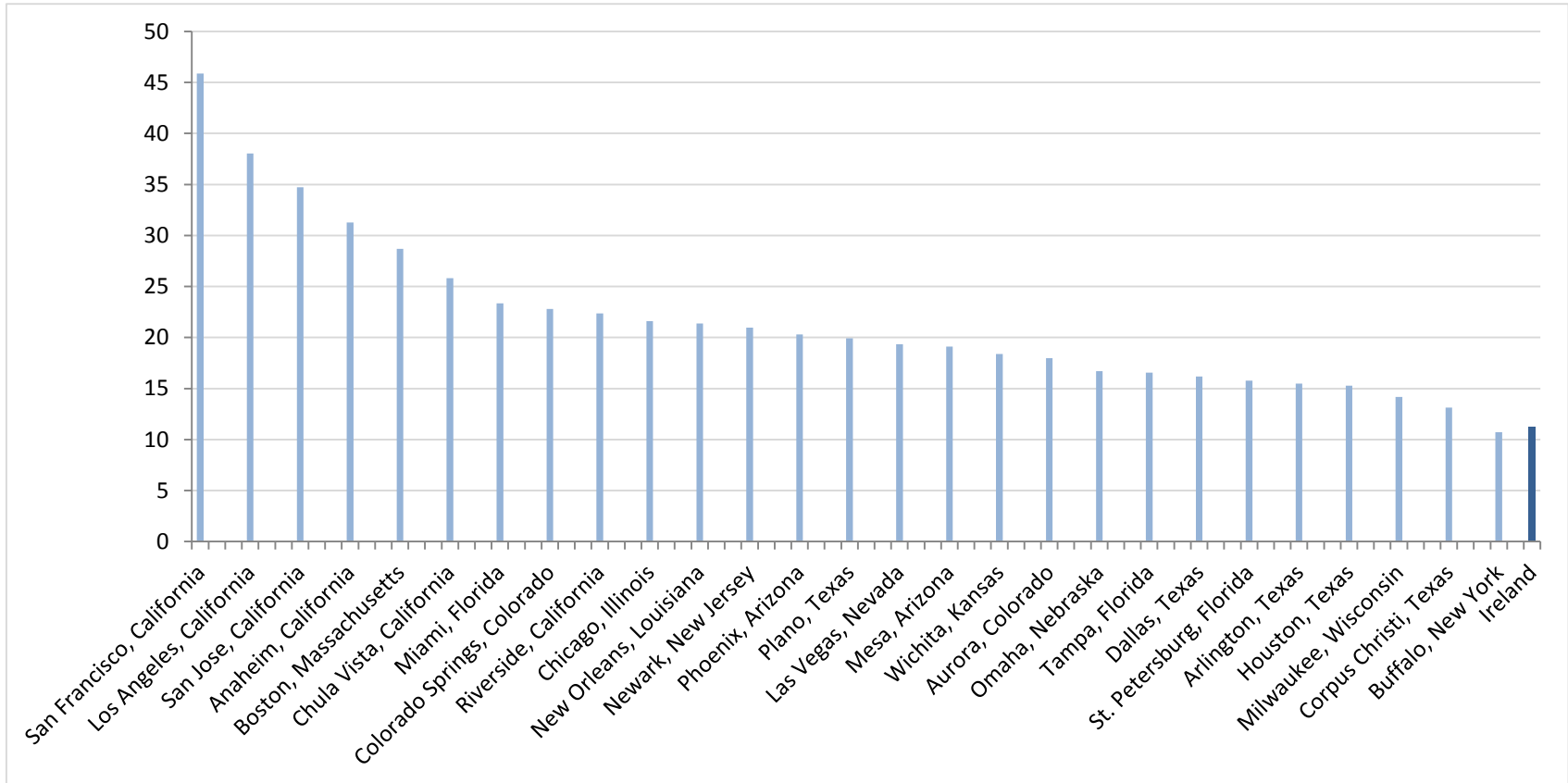
House price to rent ratio (Dublin v National)

Source: Author's Analysis

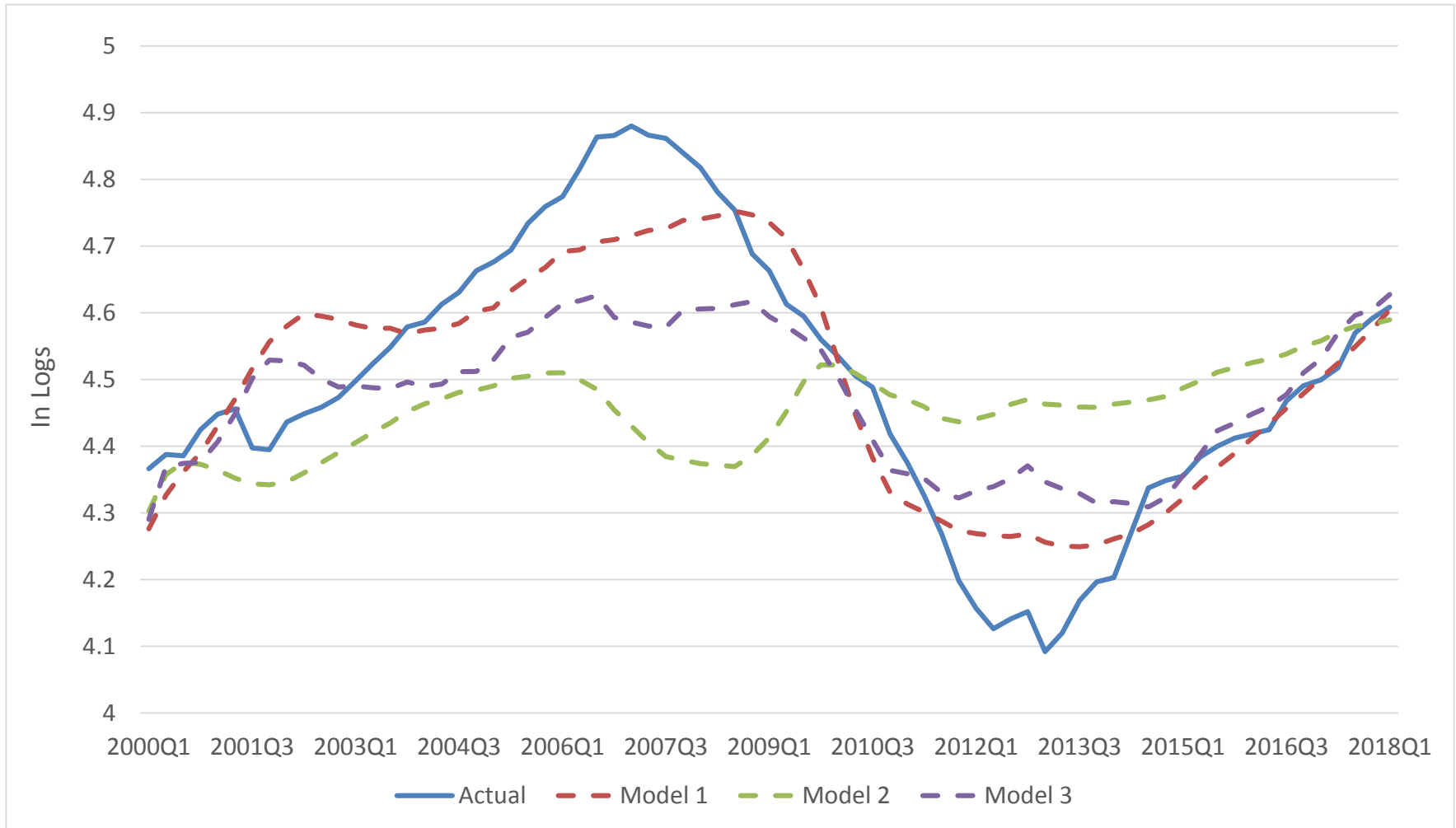@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**
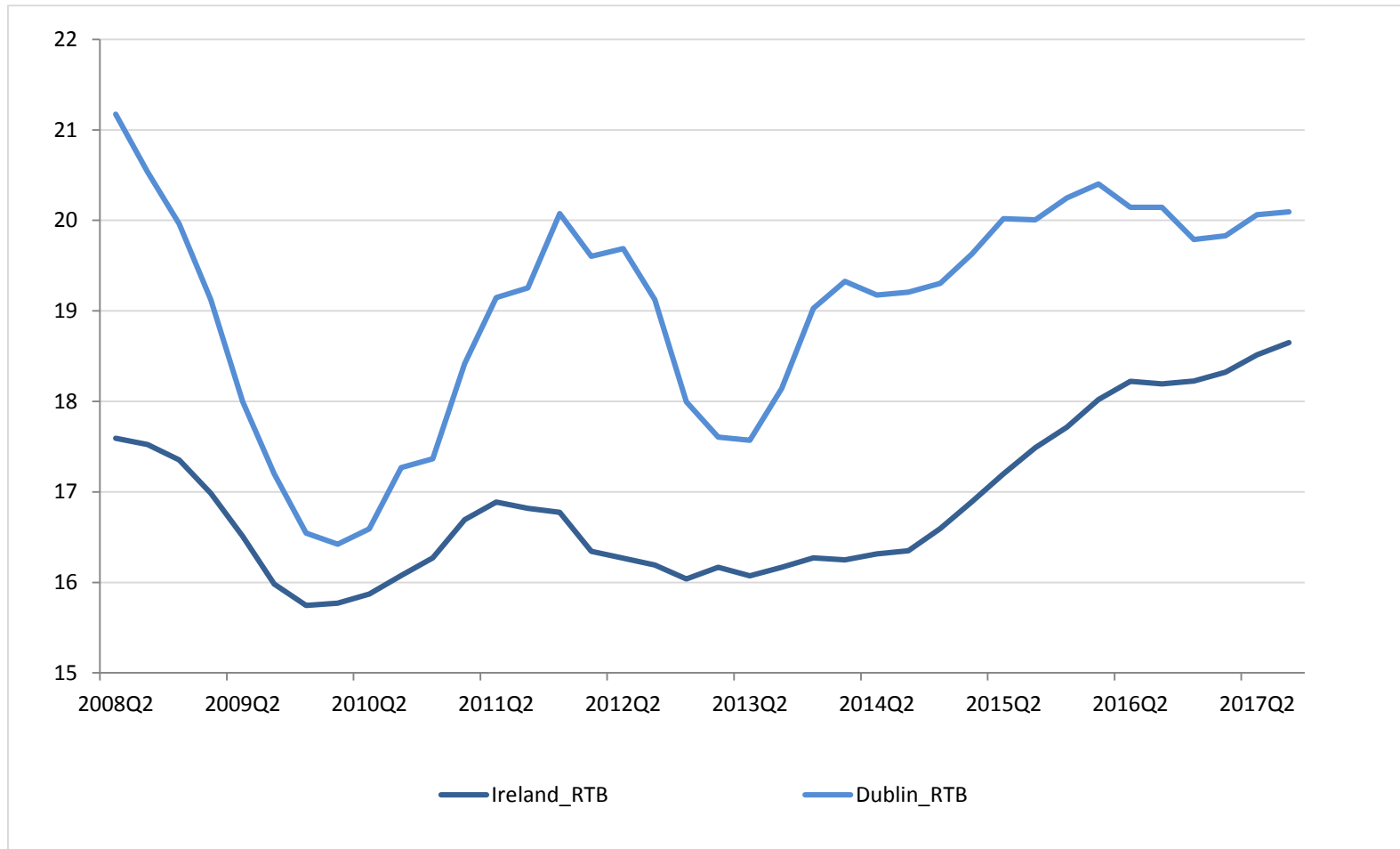
Fundamental house price estimates

- Common within Irish house price literature;

  Murphy (2005), Roche (2001; 2003), McQuinn & O'Reilly (2007), Kelly & McQuinn (2014), McQuinn (2014).

- Three different econometric specifications

  i. House prices = ƒ(demographics, disposable income and unemployment rates)

  ii. House prices = ƒ(affordability and ratio of housing stock to population)

  iii. House prices = ƒ(disposable income per capita, user cost of capital and housing stock per capita)

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Fundamental house price estimates

- Results are closely correlated

- At present market is ≈ equilibrium

- Expected developments in

  - Affordability, demographics, monetary policy

  - Low supply response

- Continued upward housing demand

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

Actual and fundamental house price estimates

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Deviation from fundamental prices (%)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**
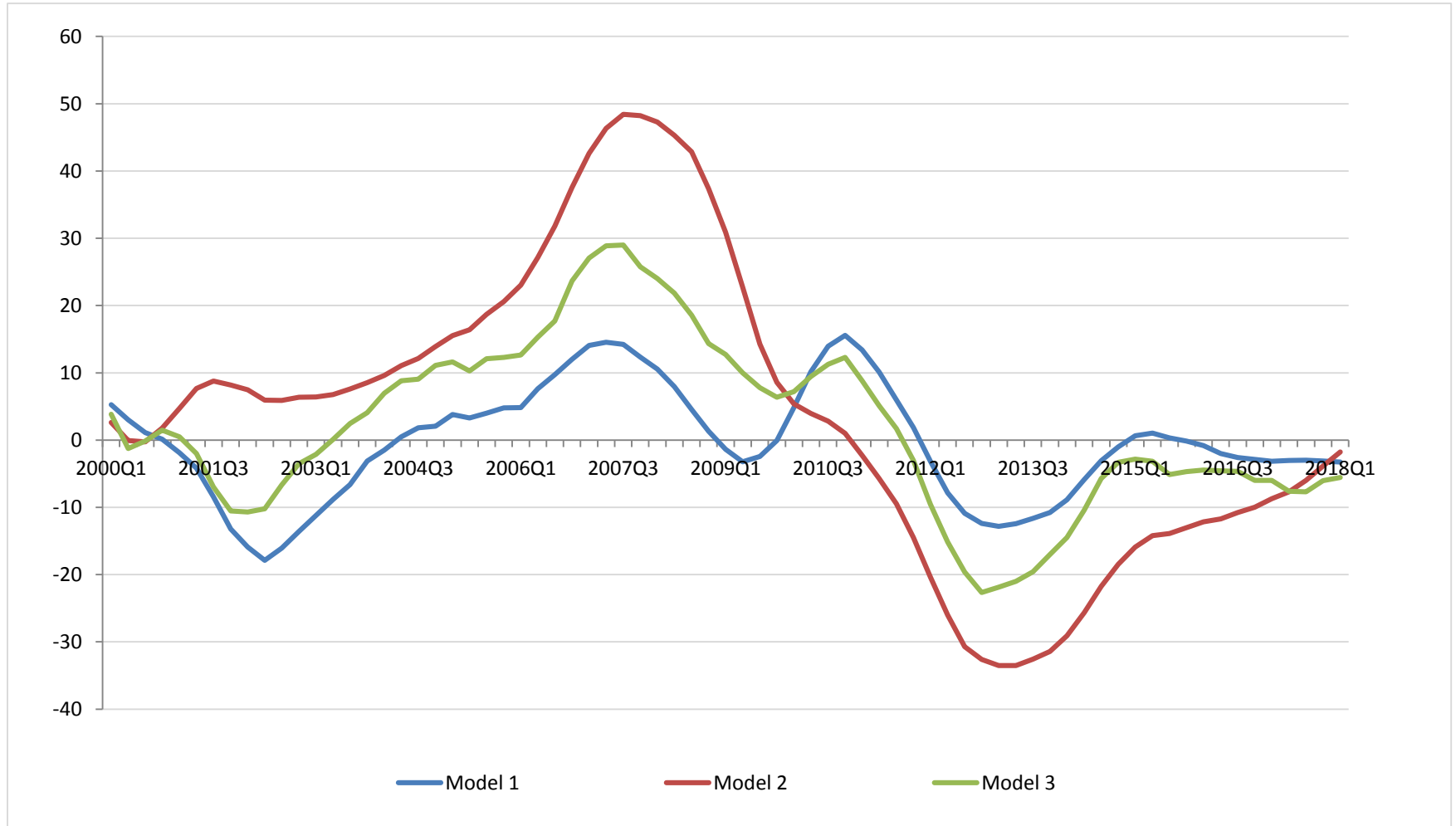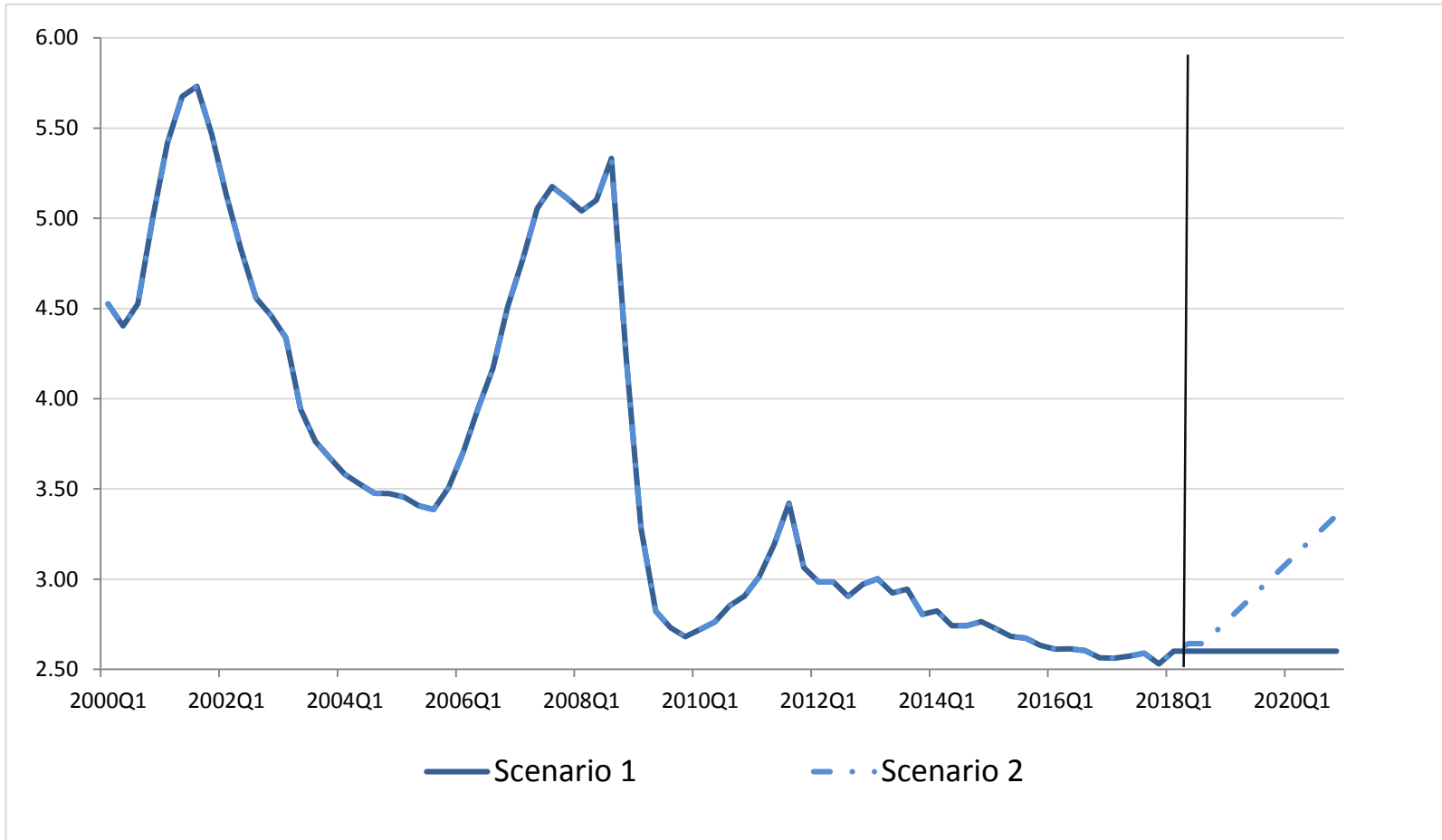
Future scenario

- Error-correction model:
  - Examine future price movements

- Forecasting from 2018 to 2020
  - Values for capital stock, population levels, disposable income (QEC),
  - Interest rates (two scenarios); constant & gradually increasing rate

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

Future interest rate scenarios (%)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Historical and future house price levels (index)

Source: Author's Analysis

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**
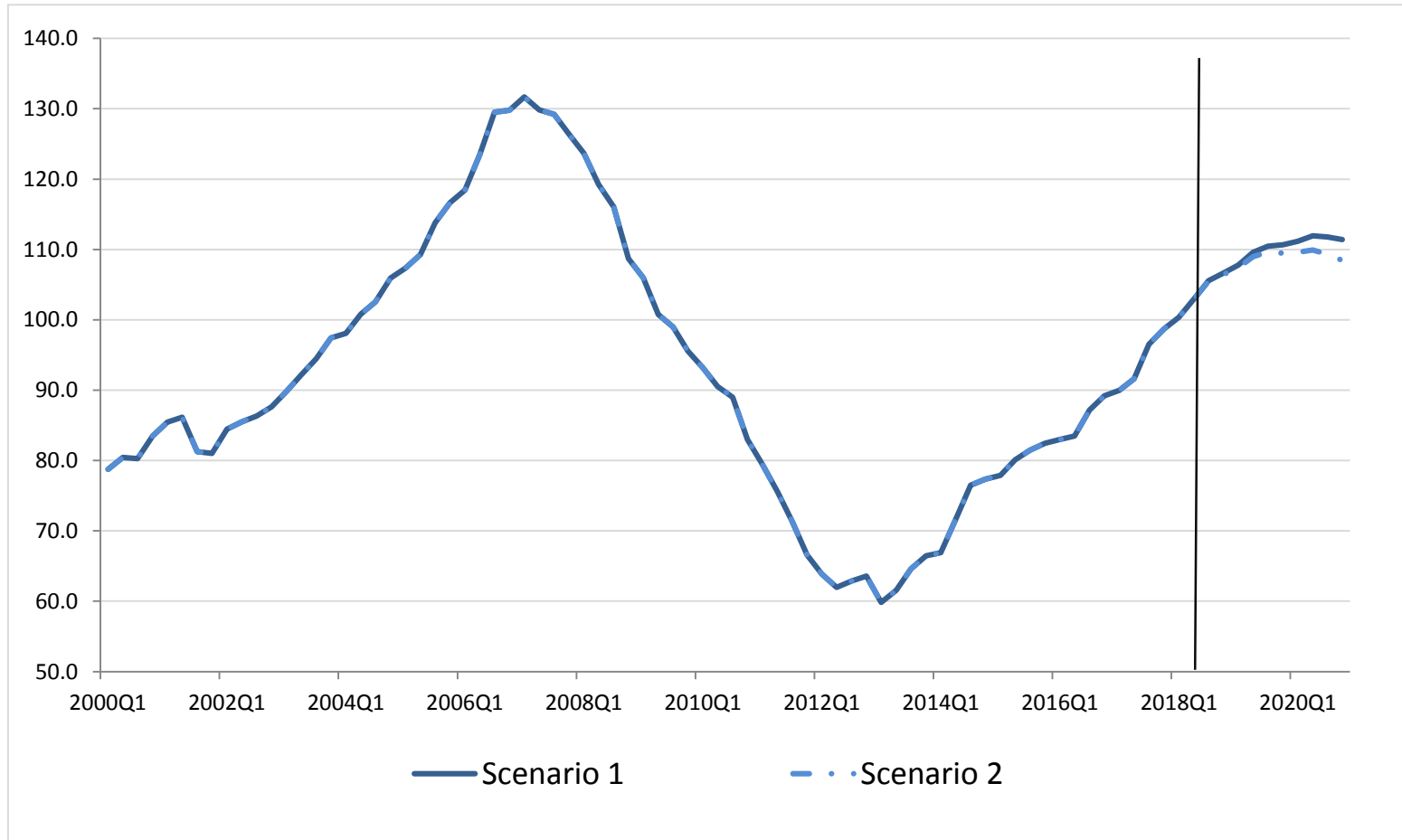
Could house prices fall in short-run?
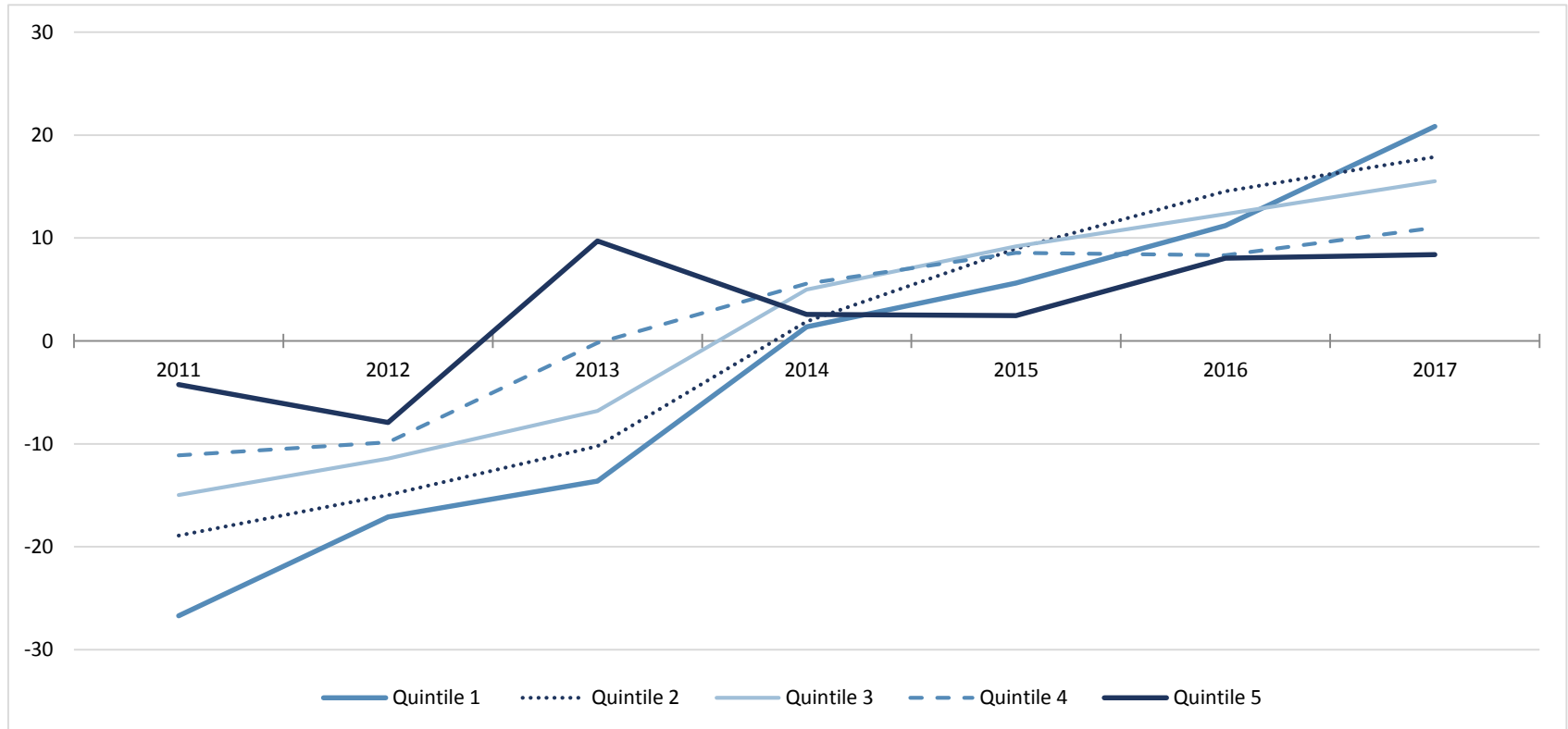
- Prices fall due to
  - Collapse of a bubble
    - No sign of one yet
  - Significant deterioration in "fundamentals"
    - Increase in mortgage rates?
    - Sudden decline in income levels?
    - Sharp rise in unemployment
- Most unlikely

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

Back of the envelope assessment

- If prices are in equilibrium

- Should move in line with fundamentals?

- Across countries:

  - Income elasticity of house prices ≈ 1.5 – 2.0 %

- Most commentators:

  - Forecast income growth of 3.5 to 4 %

- Suggests house price increases of 6.5%?

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

Where are recent price increases coming from?

Figure: Annual Growth (%) in average purchased property prices per quintile

Source: Property Price Register

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

Housing demand now:

- Price increases
  - More significant at the lower end of the distribution (prices)
- Affordability challenges now more pressing
  - For the lower end of the income distribution?
- Macro prudential regulations
  - Limiting demand at the high end of the price distribution?
- If so
  - Similar to other markets – London for example

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

How elastic are prices w.r.t. supply?

- Forecast assumes:

Year	Supply
2018	23,400
2019	29,700
2020	36,700

- Sensitivity:
  - Keep supply fixed at 18,500 units per annum
  - House prices only 0.5 per cent higher than baseline

- Point to note:
  - Estimates generated during Celtic Tiger era

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

The role of credit:

- Models assumes a steady-state relationship wherein credit conditions do not change

- Any changes in mortgage credit availability would have a strong influence on future house prices

- Models can be augmented to include an indicator for mortgage credit supply (Duca et al. 2014)

- 1.0 per cent increase in credit supply estimated to contribute towards a 0.4 per cent increase in prices

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Influence of Credit Provision

- This responsiveness to credit provision should vary over time as credit conditions change

- McQuinn (2017) provides an alternative indicator of mortgage credit provision, producing a time-varying estimate

- Enables the observation of responsiveness of house prices to changing credit conditions under an Irish context

@ESRIDublin   #ESRIevents   #ESRIpublications   **www.esri.ie**

Credit Elasticity of House Prices
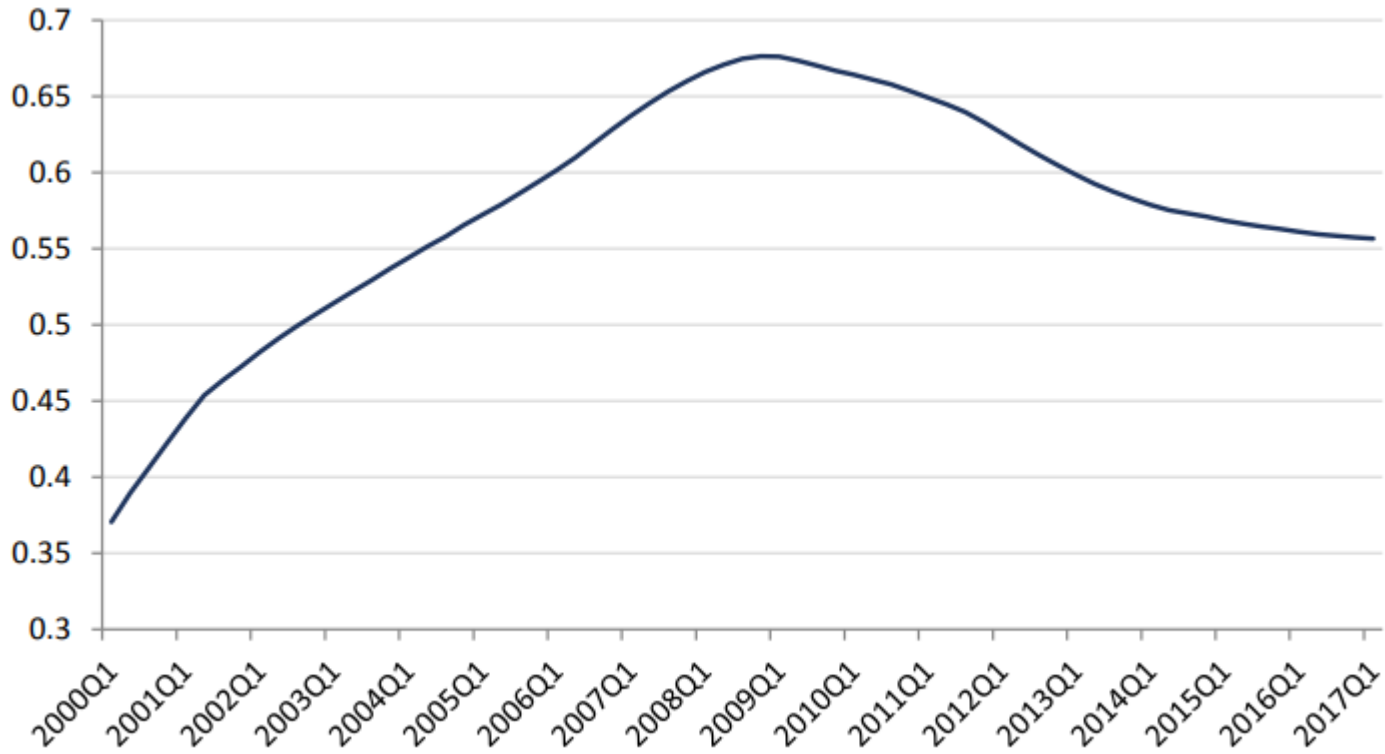
Source: Author's Analysis

Specific conclusions

- House price levels converging to fundamental value

- High growth due to
    - Past overcorrection in prices &
    - Recent improvements in economic variables

- Given the likely strong increase in housing demand
    - Economic growth, labour market and demographics
- Policy should avoid further stimulating demand

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

General conclusions

- Irish market characterised by significant volatility
- Since 1995:
    - Significant fluctuations in prices and supply
    - Gives rise to speculative behaviour
    - Which, in turn accentuates the cycle
- Policy needs to smooth the cycle
    - Land market management
    - Macroprudential policy (credit)
    - Tax treatment

www.esri.ie   @ESRIDublin   #ESRIevents   #ESRIpublications

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE