



# Housing Markets: Setting the Scene

**Prakash Loungani**

International Monetary Fund

Presentation at

**European Commission**

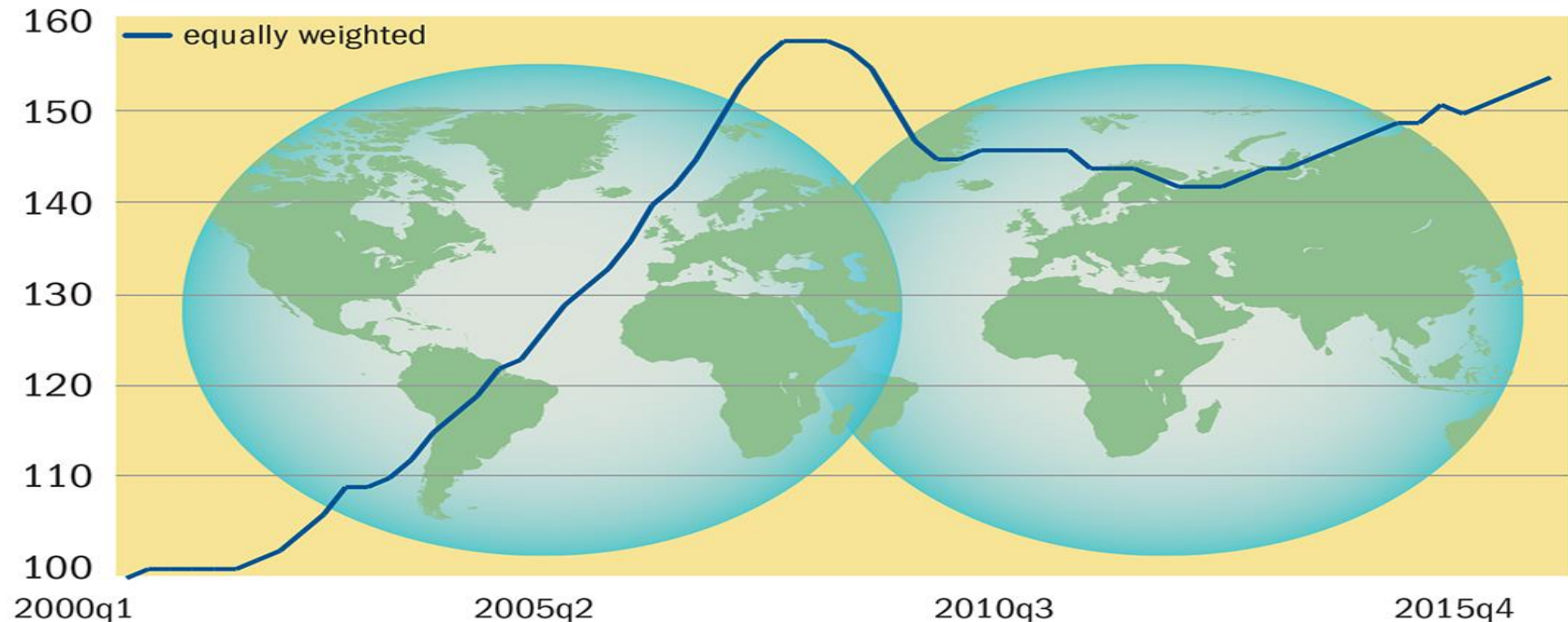
November 30, 2016

VIEWES EXPRESSED ARE THOSE OF THE PRESENTER  
AND SHOULD NOT BE ASCRIBED TO THE IMF.

# Global House Price Index: Almost back to pre-crisis level

## Global Real House Price Index

Global housing markets continue a slow recovery.



Sources: Bank of International Settlements, European Central Bank, Federal Reserve Bank of Dallas, Savills, and national sources



[www.imf.org/housing](http://www.imf.org/housing) | #HousingWatch

# Time to worry again?

Answer: A guarded “no” for five reasons

## *Lack of synchronicity*

- 1) Not a synchronized global boom across countries
- 2) Booms localized to a few cities in many countries

## *Not an ‘excessive credit’-driven boom*

- 3) Some booms due to supply constraints
- 4) Low interest rates driving some of the appreciation

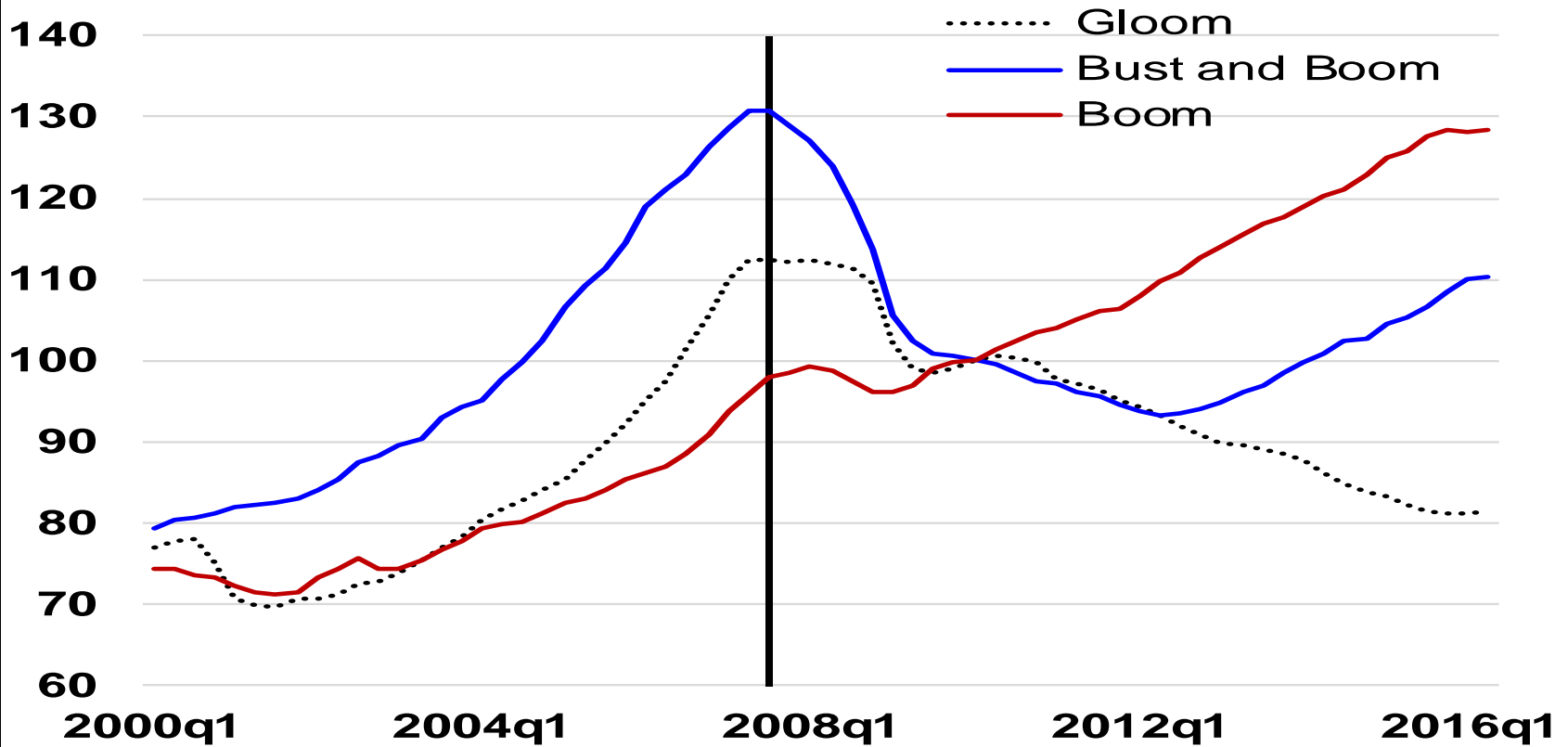
## *No more ‘benign neglect’*

- 5) Active use of macroprudential policies to tame booms

**NOT A SYNCHRONIZED BOOM**

# Three-track recovery

**Real House Price Index**  
2010Q1=100



Source: Bank for International Settlements, European Central Bank, Federal Reserve Bank of Dallas, Savills, and national sources

# Countries in each cluster

## **Gloom**

Brazil, China, Croatia, Cyprus, Finland, France, Greece, Italy, Macedonia, Morocco, Netherlands, Poland, Russia, Serbia, Singapore, Slovenia, Spain, and Ukraine.

## **Bust and Boom**

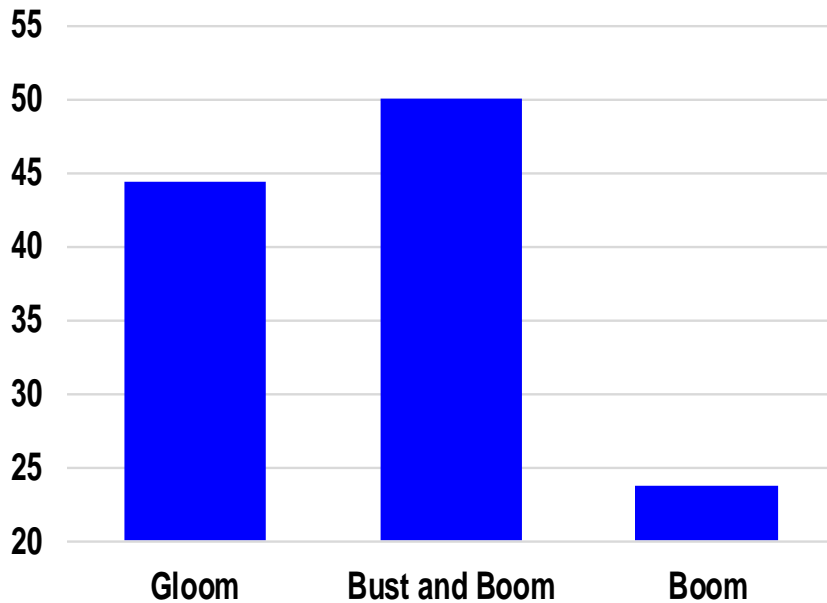
Bulgaria, Denmark, Estonia, Germany, Hungary, Iceland, Indonesia, Ireland, Japan, Latvia, Lithuania, Malta, New Zealand, Portugal, South Africa, Thailand, United Kingdom, and United States.

## **Boom**

Australia, Austria, Belgium, Canada, Chile, Colombia, Czech Republic, Hong Kong SAR, India, Israel, Kazakhstan, Korea, Malaysia, Mexico, Norway, Peru, Philippines, Slovak Republic, Sweden, Switzerland, and Taiwan POC.

# Incidence of financial crisis

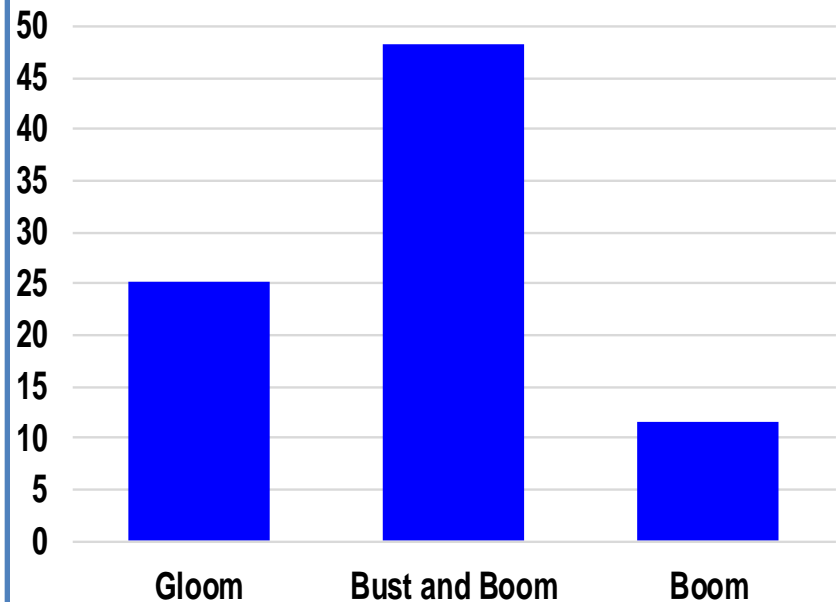
Percent of countries experiencing a financial crisis: 2007-12



Note: Financial crisis includes: systemic banking crisis, currency crisis, sovereign debt crisis, and sovereign debt restructuring

Source: "Systemic Banking Crises Database: An Update" by Luc Laeven and Fabian Valencia (2012)

Average Output Loss: 2007-12, In percent



Output losses are computed as the cumulative sum of the differences between actual and trend real GDP over the period  $[T, T+3]$ , expressed as a percentage of trend real GDP, with  $T$  the starting year of the crisis.

Source: "Systemic Banking Crises Database: An Update" by Luc Laeven and Fabian Valencia (2012)

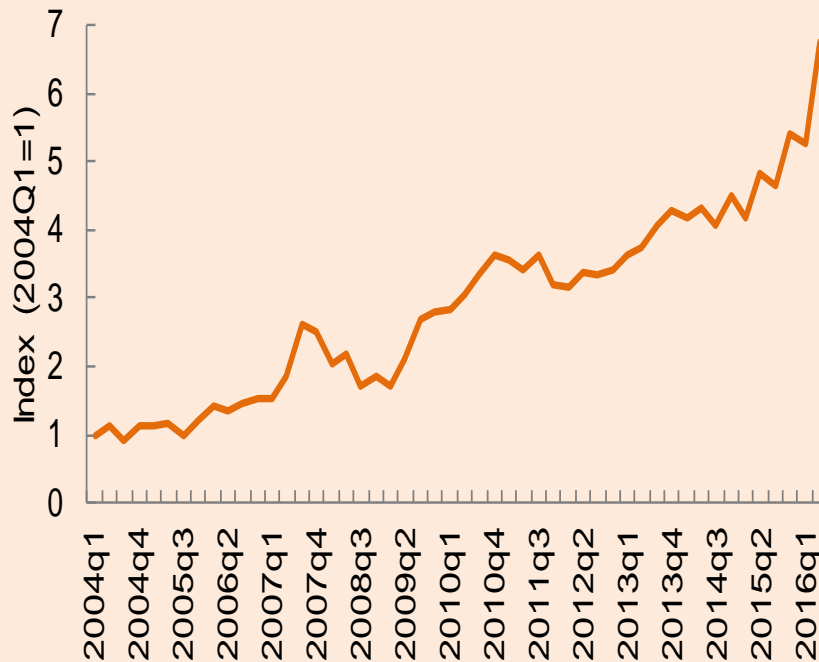
**BOOMS LOCALIZED TO A FEW  
CITIES IN MANY CASES**



# China: boom or gloom?

## A long upward march

Land prices, major drivers of house prices, have increased steadily over the past 15 years.



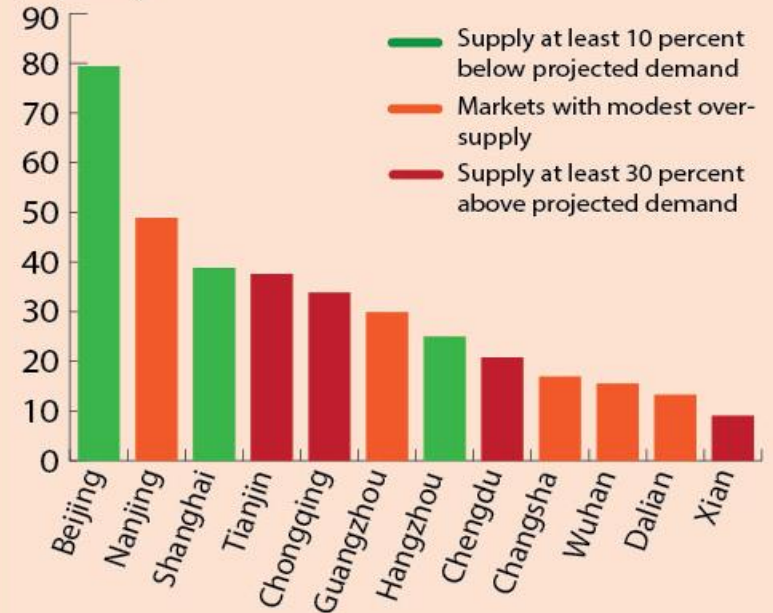
Source: Deng Yongheng, Joe Gyourko, and Jin Wu (2015), "Chinese Housing Market: What We Know and What We Need to Know"

Chart 2

## Location, location, location

Land prices appreciation and demand/supply imbalances differ vastly across cities.

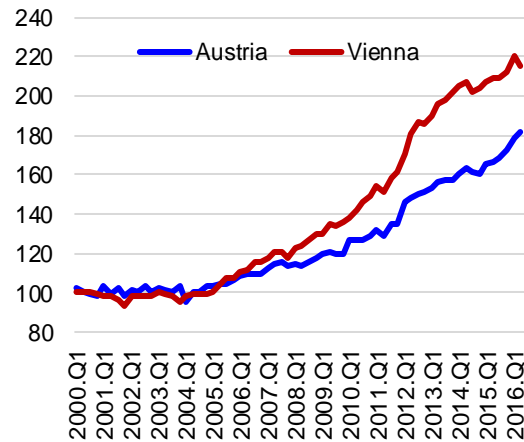
(in percent)



Source: Deng Yongheng, Joe Gyourko, and Jin Wu (2015), "Chinese Housing Market: What We Know and What We Need to Know."

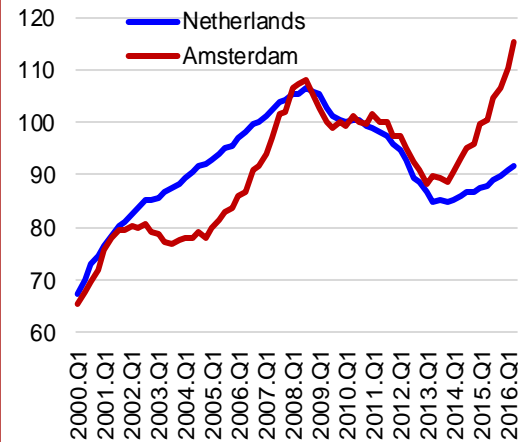
# Booms in other cities

## Austria



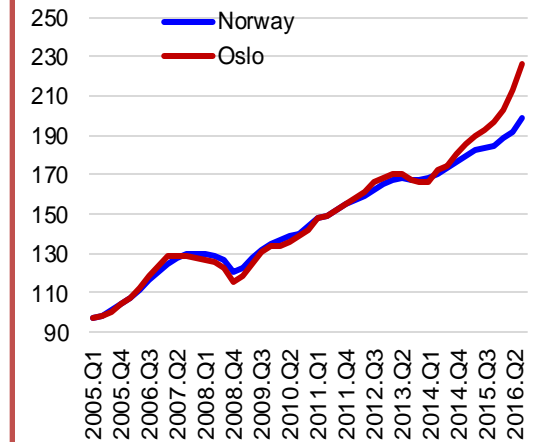
Source: Haver Analytics

## Netherlands



Source: Haver Analytics

## Norway

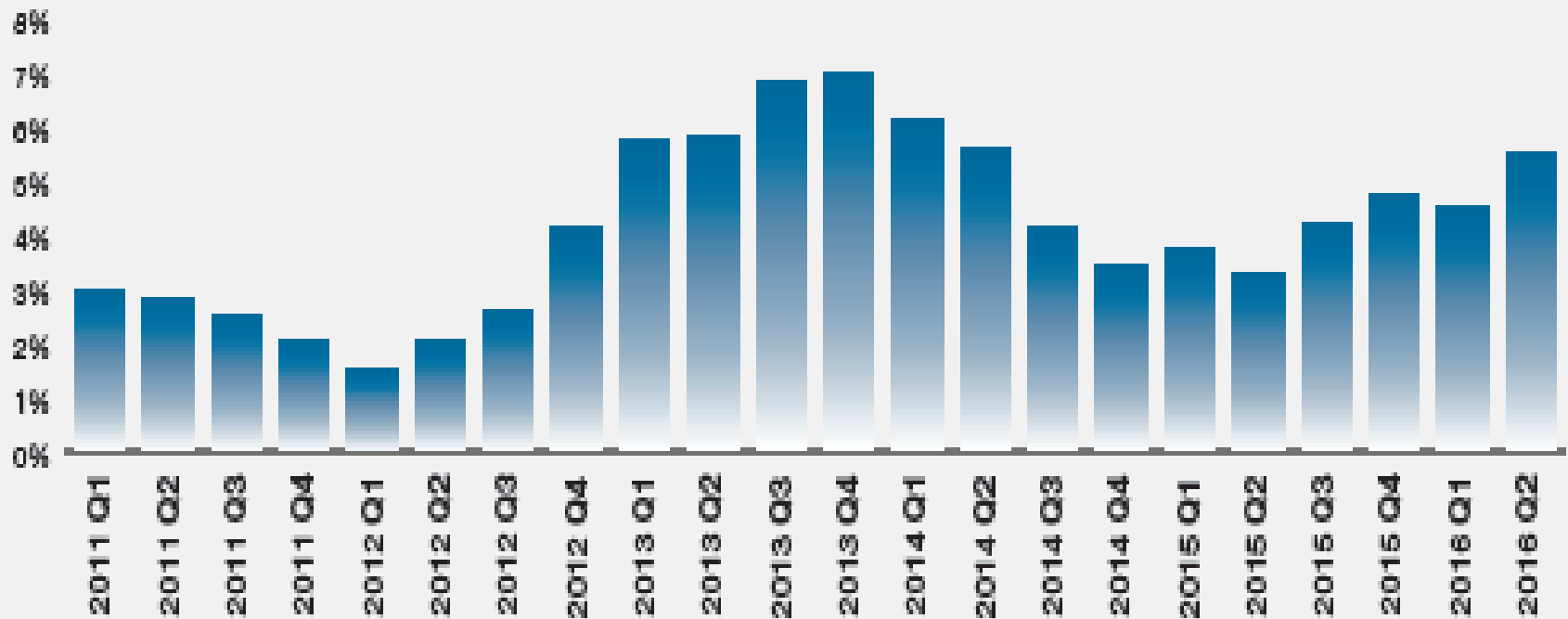


Source: Haver Analytics

# Knight Frank's Cities Index

## Global Residential Cities Index Q2 2016

Annual performance over the last five years 12-month % change

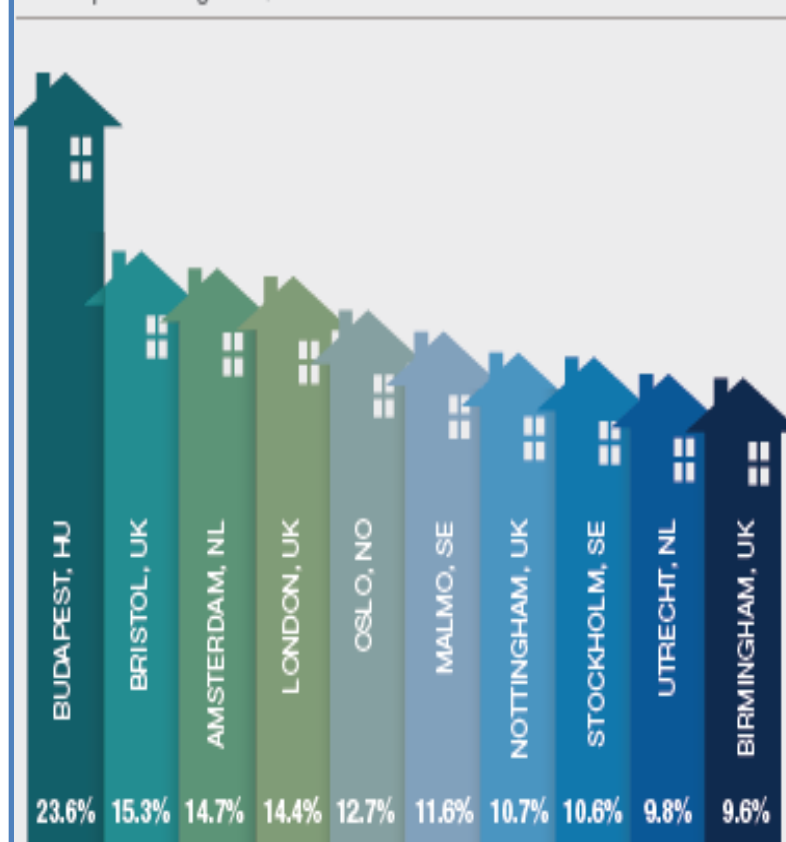


# Knight Frank's top cities

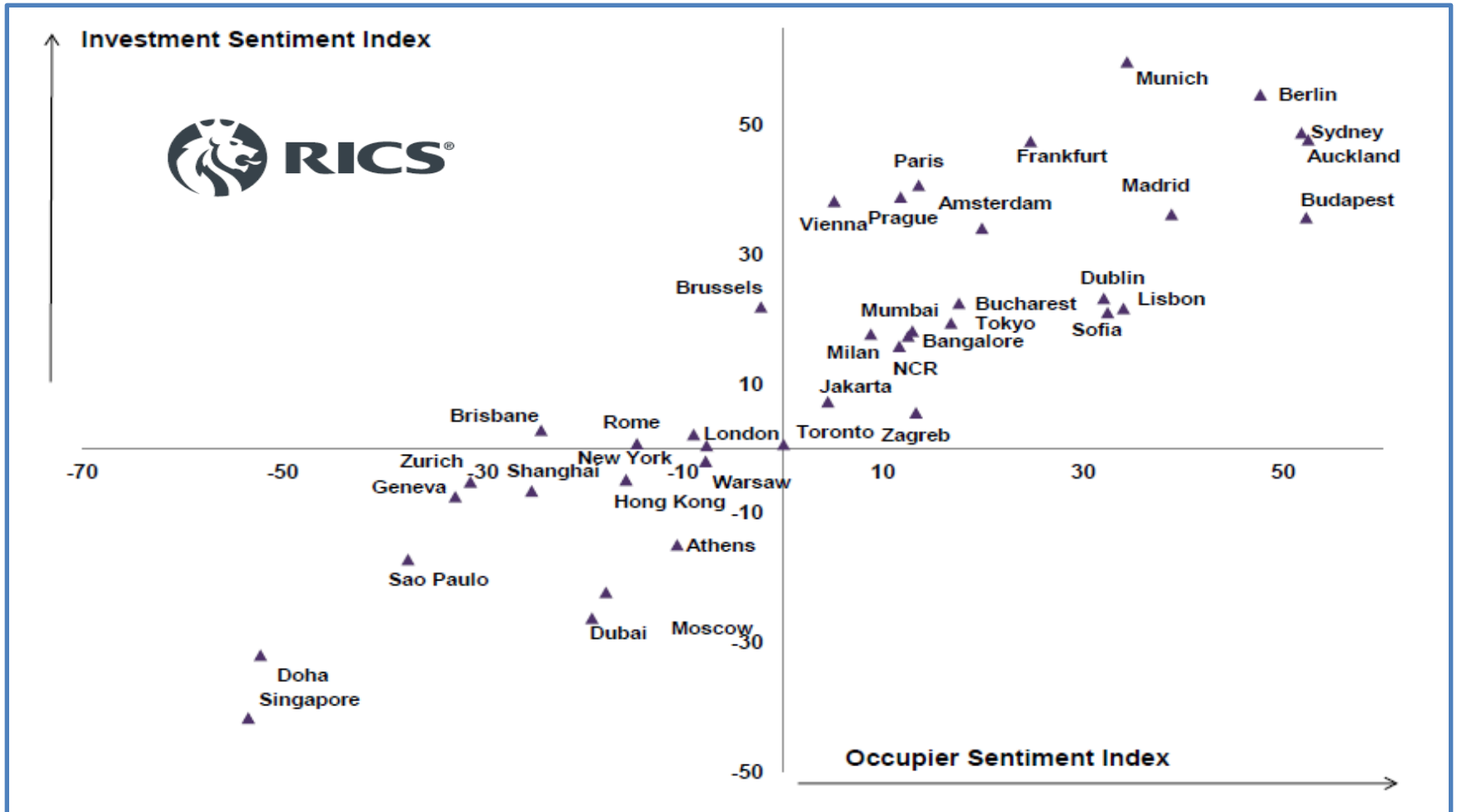
Rank	City	12-month % change (Q2 2015-Q2 2016)
1	Sherzhen, CN	47.4%
2	Shanghai, CN	33.8%
3	Nanjing, CN	31.5%
4	Budapest, HU	23.6%
5	Vancouver, CA	23.4%
6	Beijing, CN	22.3%
7	Guangzhou, CN	19.4%
8	Hangzhou, CN	17.4%
9	Istanbul, TR	17.2%
10	Haifa, IL	16.3%
11	Izmir, TR	16.2%
12	Bristol, UK	15.3%
13	Amsterdam, NL	14.7%
14	Tianjin, CN	14.6%
15	Auckland, NZ	14.6%
16	London, UK	14.4%
17	Wuhan, CN	13.8%
18	Hamilton, CA	13.8%
19	Oslo, NO	12.7%
20	Portland, US	12.6%
21	Victoria, CA	12.5%
22	Toronto, CA	12.4%
23	Chennai, IN	12.1%
24	Malmo, SE	11.6%
25	Seattle, US	11.1%

## Europe's top ten urban housing markets

Annual price change to Q2 2016



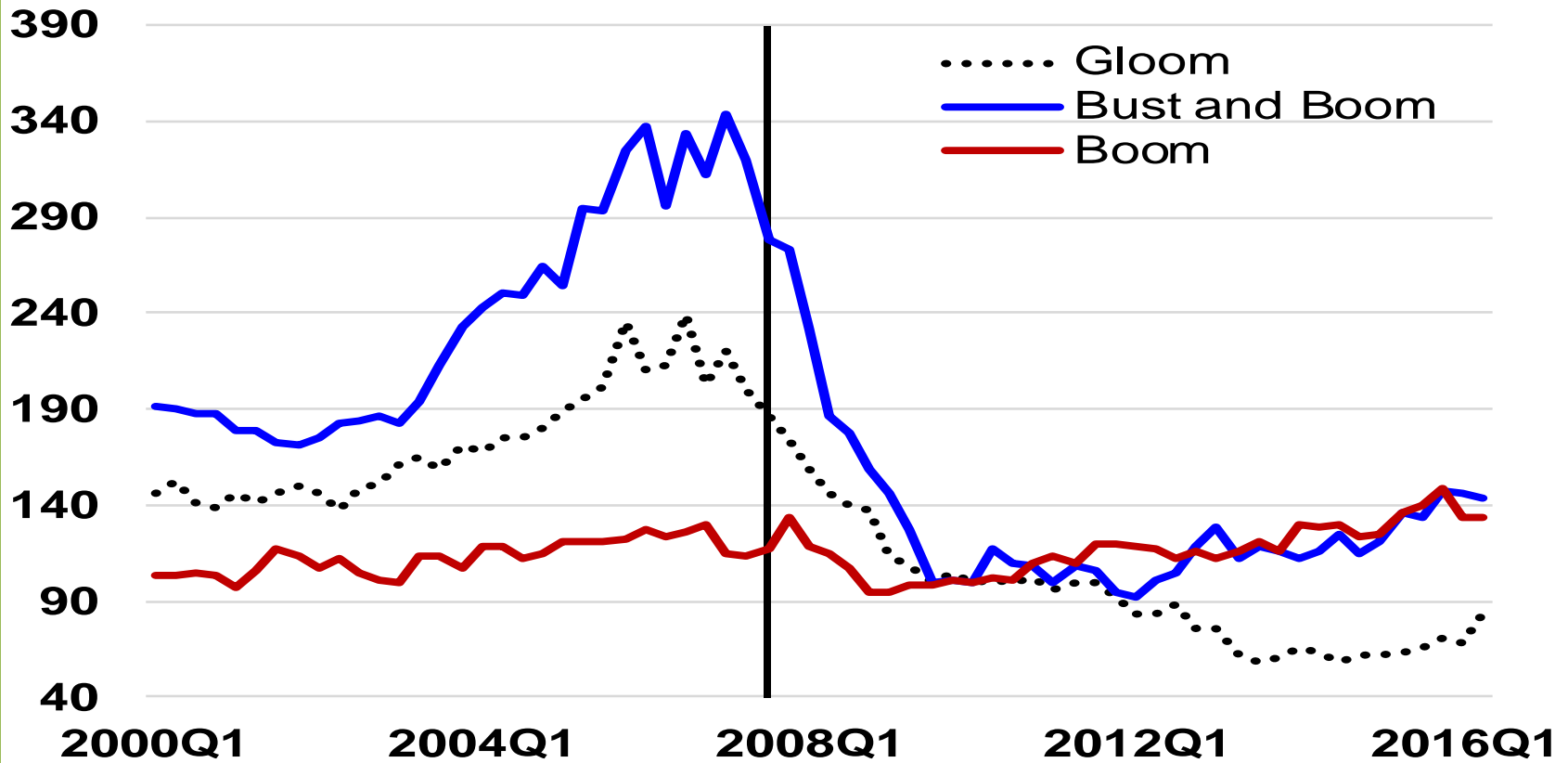
# RICS Commercial Property Monitor for Cities



# **SOME BOOMS DUE TO SUPPLY CONSTRAINTS**

# Housing permits in each cluster

Residential Building Permits Index, 2010Q1=100

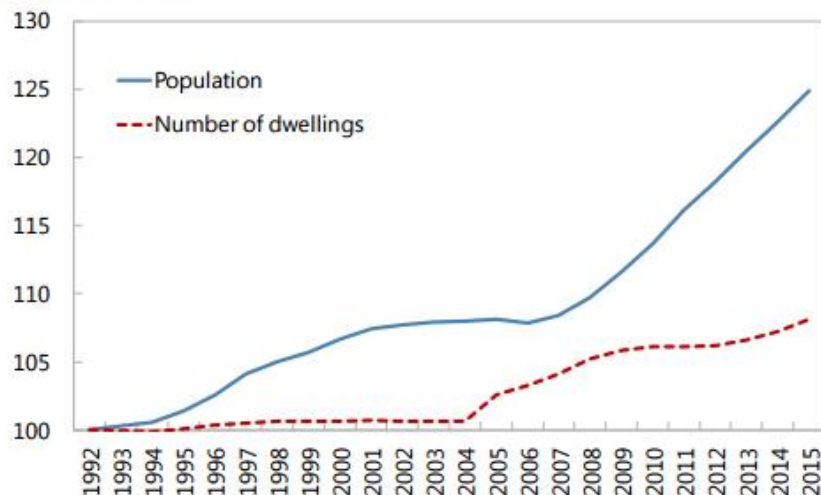


Source: Eurostat, Haver Analytics, and OECD

# IMF references to supply constraints: Denmark

## Copenhagen: Population and Housing Stock

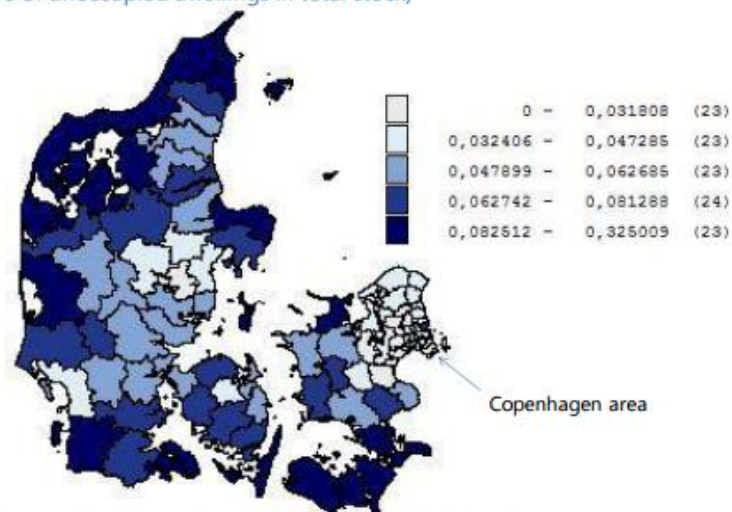
(index, 1992 = 100)



Sources: Statistics Denmark and Fund staff calculations.

## Vacancy Rate in Denmark's Cities, 2015

(share of unoccupied dwellings in total stock)



Sources: Statistics Denmark and Fund staff calculations.

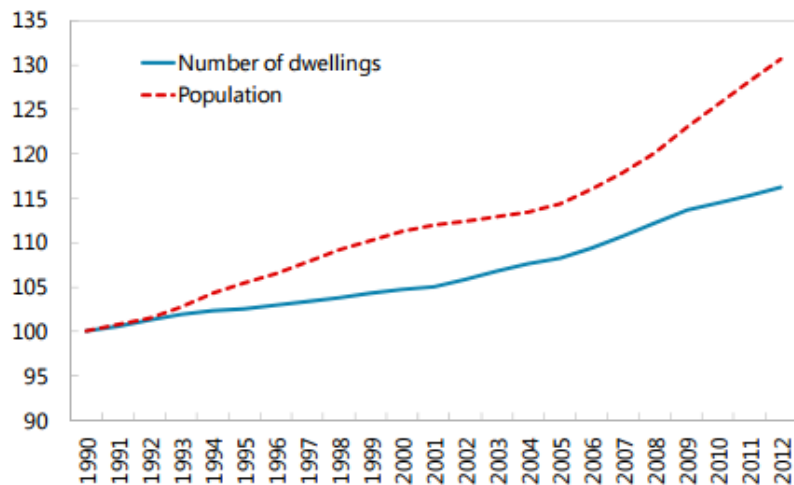
“Supply conditions matter for house price developments. The analysis (...) highlights the often-underestimated role of housing supply constraints in shaping local house prices in Danish cities. *Cities such as Copenhagen where the stock of housing is relatively inflexible and responds slowly to changes in housing demand could see higher price growth (...).*”



# IMF references to supply constraints: Sweden

## Stockholm: Housing Stock and Population

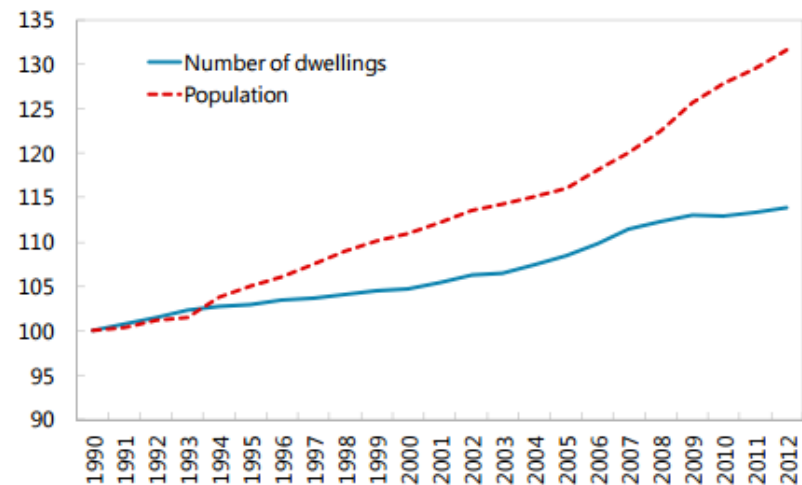
(Index, 1990 = 100)



Sources: Statistics Sweden and Fund staff calculations.

## Malmo: Housing Stock and Population

(Index, 1990 = 100)



Sources: Statistics Sweden and Fund staff calculations.

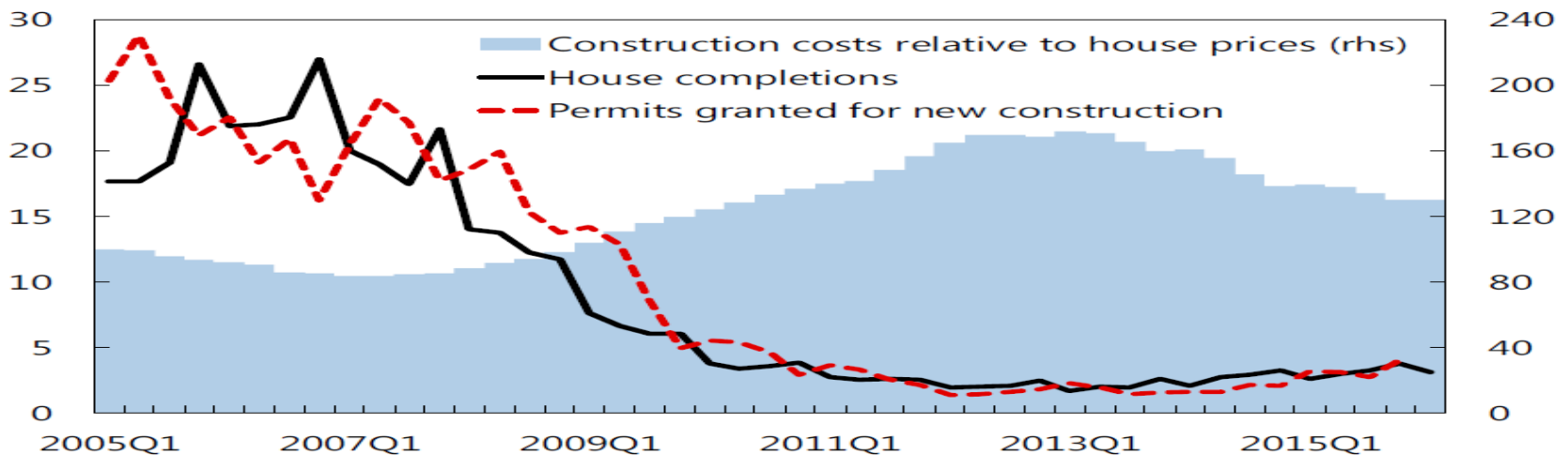
“House price booms in Sweden, as in many other countries, are a big city phenomenon (...) *Differences in housing supply conditions across cities contribute to such price divergences.* Immigration inflows, rapid urbanization, and income growth have put pressures on the demand for housing in large cities. *But the housing stock has also not expanded at a pace commensurate with that demand.*”

# IMF references to supply constraints: Ireland

## Housing Market Indicators

(Thousands of units)

(Index, 2005Q1=100)



Source: Haver Analytics.

“Boosting the housing supply would help mitigate property price and rent pressures. The sluggish construction activity in recent years reflects the sector’s downsizing after the bursting of the property market bubble in 2008-09 and the ensuing limited access to finance for companies. *High construction costs due to strict planning requirements have also been a factor.*”

# IMF references to supply constraints: Australia, Canada, France

- **Australia:** *Housing supply does seem to have grown significantly slower than demand*, reducing (but not eliminating) concerns about overvaluation.
- **Canada:** *Montreal and Ottawa registered near zero [house price] growth* over the last four quarters. Home sales have not been particularly strong suggesting that *price increases may be due to supply constraints rather than demand factors*.
- **France:** “*More could be done to alleviate structural rigidities in the housing market*. Residential construction has fallen by 14 percent, and real house prices by 11 percent, since the peak in 2007. While this decline is partly cyclical, *a succession of laws introducing regulatory and tax changes* may also have contributed.” ([July 2015](#))

# IMF references to supply constraints: Germany, Netherlands, Norway

- **Germany:** The strength of markets in the center of the largest cities, where *supply restrictions* are the tightest, also points to an *important role of housing supply factors.*" ([July 2014](#))
- **Netherlands:** "*Zoning regulations have constrained supply* and contribute to its low price elasticity. In addition, *tight zoning and other regulations have held back new developments.*" ([December 2014](#))
- **Norway:** "[IMF] staff would welcome new measures that could take some of the pressure off of housing prices by relaxing *unneeded supply restrictions.*"

# IMF references to supply constraints: United Kingdom

- House prices: “***House price increases in the UK stand out among the OECD economies.***

Over the past 30 years, real house prices have increased the most in the UK when compared with other OECD economies. Indeed, over this period, annual house price increases have averaged 3 percent in real terms, compared with 1 percent for the OECD as a whole.” ([July 2014](#))

- Housing construction: “(...) ***rapid price increases reflect the impact of serious supply constraints ...*** Residential investment in the UK as a share of GDP is among the lowest across the OECD economies. The sluggish response of residential investment to a strong demand for housing is attributed to supply-side constraints ... ***restrictive planning regulations, in combination with inadequate incentives for local authorities to grant building permits***” ([July 2014](#))

# Some perceptions about the role of foreign investors in real estate markets

## “My fix for the [London] housing crisis: ban ownership by foreign non-residents”

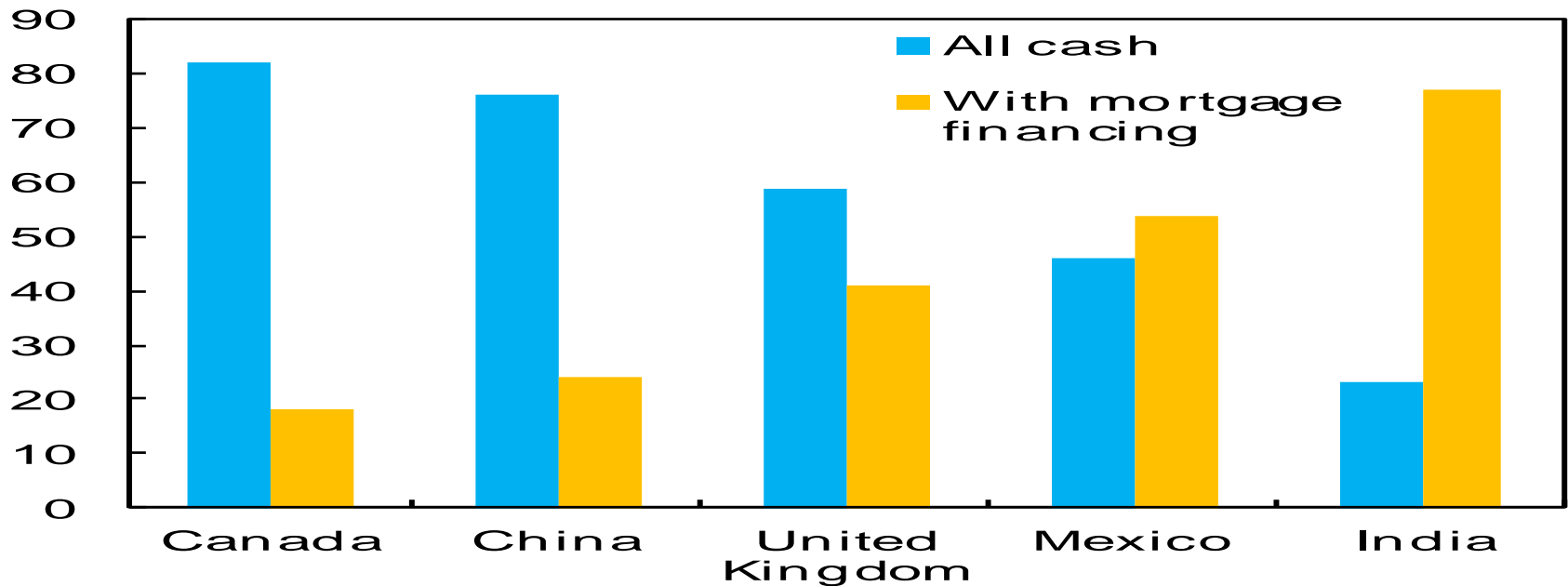
– Zoe Williams in *The Guardian* (June 22, 2015)



- “What we have seen over three decades is a rise in house prices far beyond what people can afford.”
- [“75% of inner London housing is never shown on the UK market](#), going straight to mainly Asian investors.”
- “It has become so normal for housing to be sold abroad that to complain about it sounds old-fashioned, almost racist. However, when anybody from anywhere can buy a flat in your city, sooner or later the people who live and work in it won’t be able to afford to.”
- “The solution could not be easier: we could [ban the ownership of housing by foreign non-residents](#), as they do in Norway and Australia.”

# Top Foreign Buyers of U.S. Real Estate, by Type of Financing (percent of total)

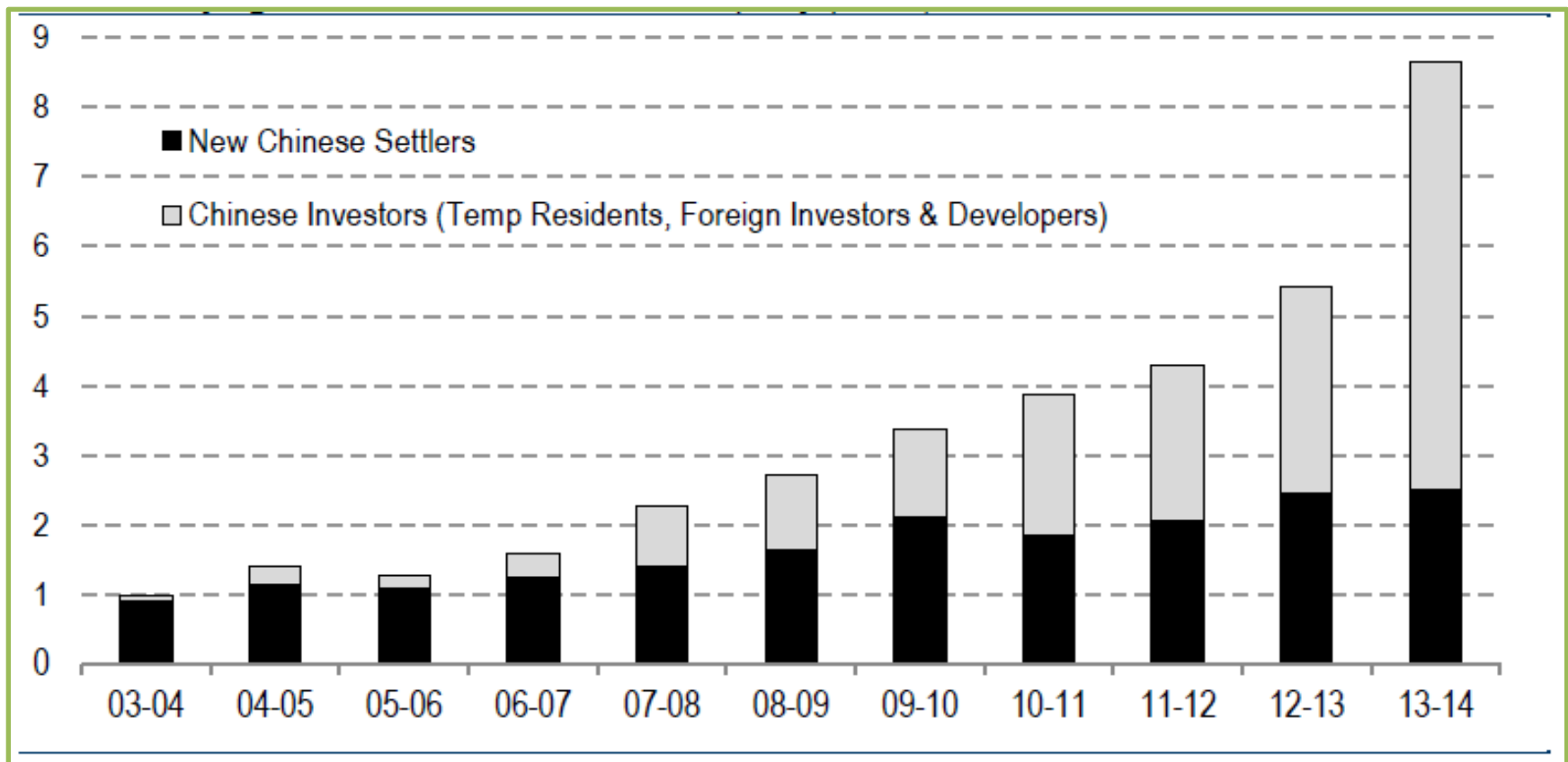
## Type of Financing by Top 5 Buyers



Source: National Association of Realtors

# Chinese Purchases of Australian Residential Property

(billions of Australian dollars)



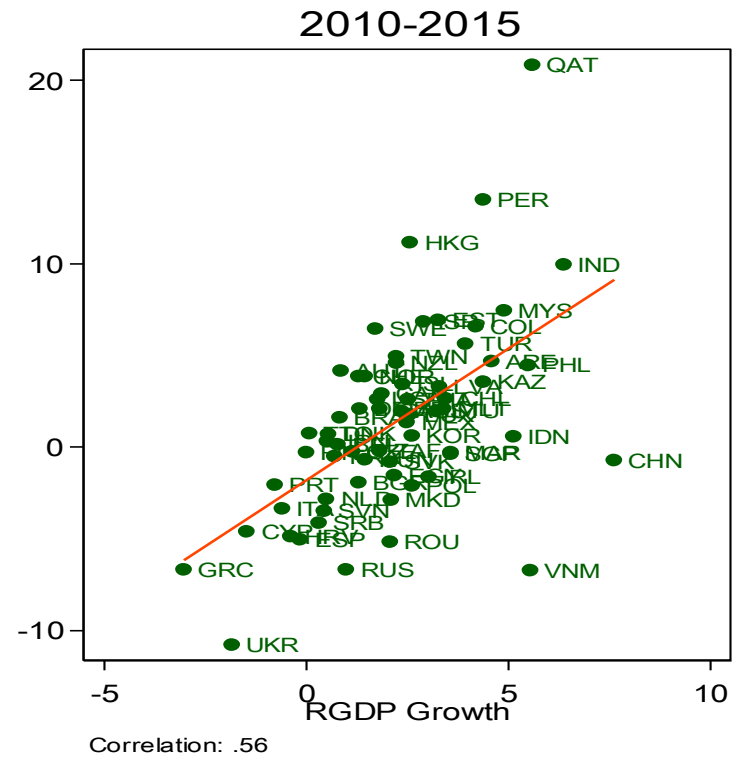
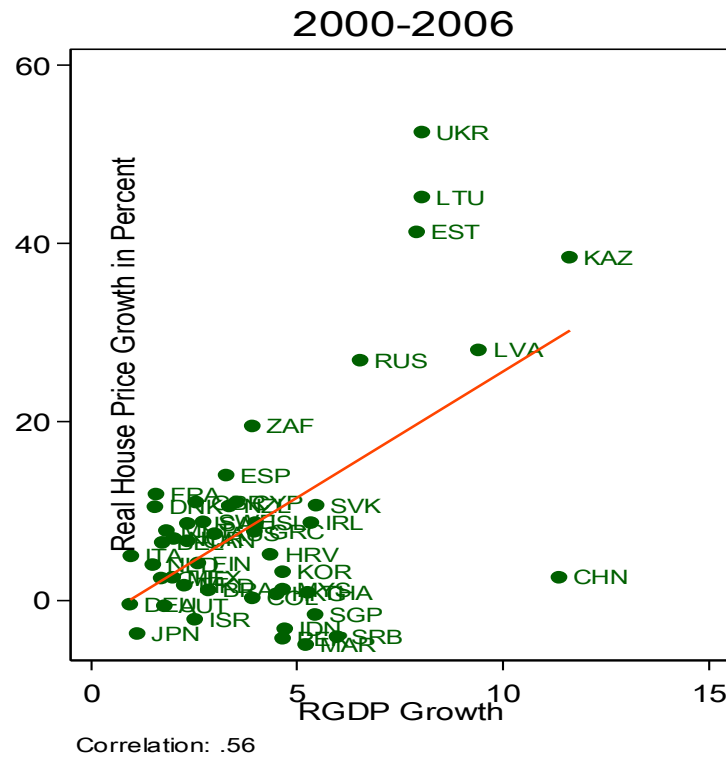
Source: Foreign Investment Review Board, Australian Department of Immigration, Australian Bureau of Statistics, Credit Suisse



# **LOW INTEREST RATES AND HOUSE PRICE APPRECIATION**

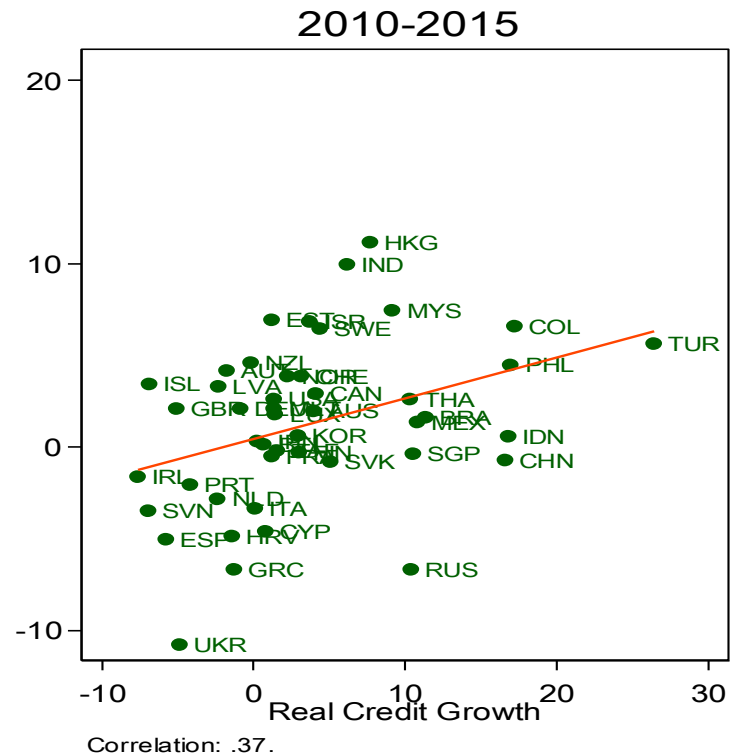
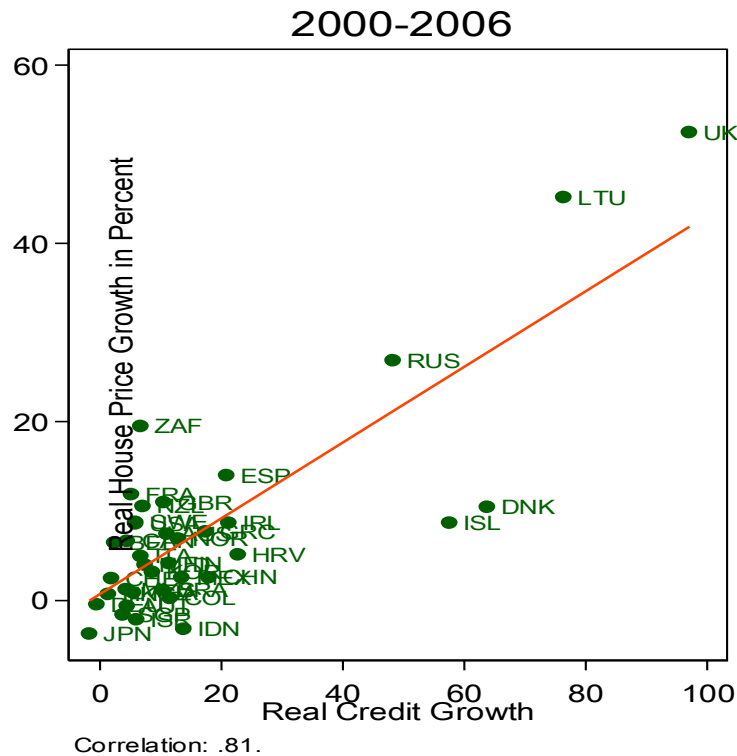
# House Prices and GDP

Panel A  
Real GDP Growth and Real House Prices Growth



# House Prices and Credit

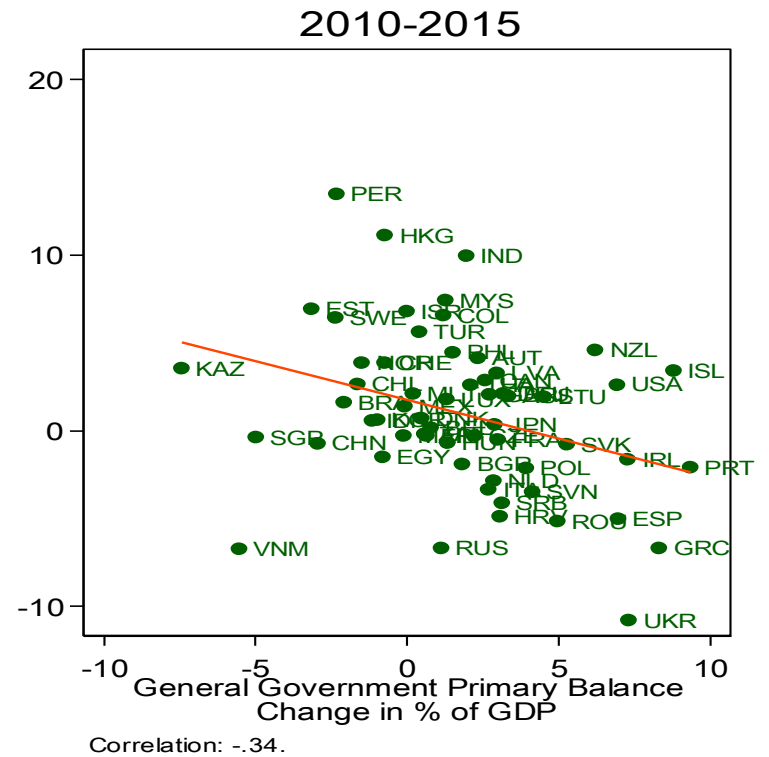
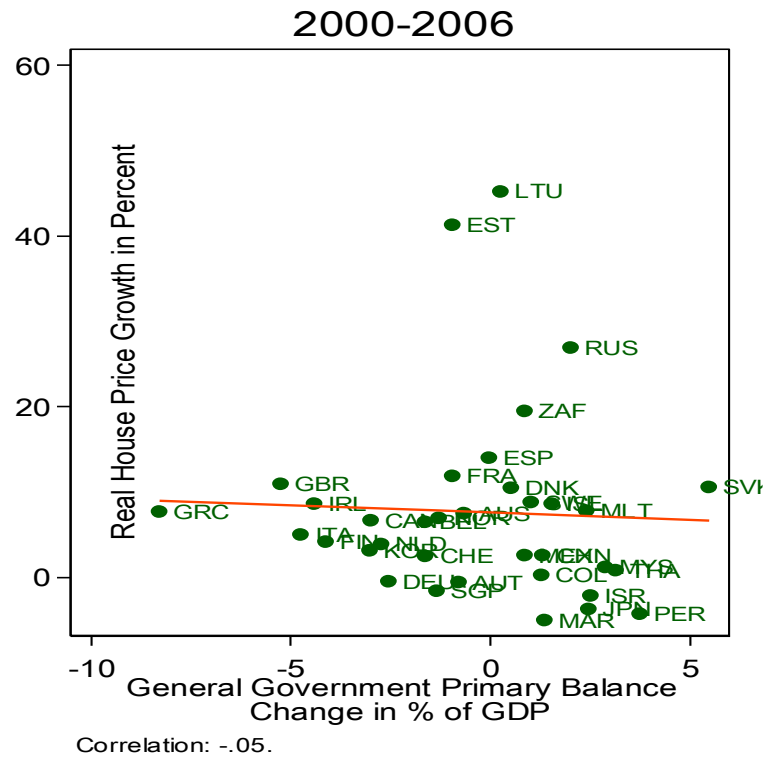
Panel B  
Real Credit Growth and Real House Prices Growth



# House Prices and Fiscal Balances

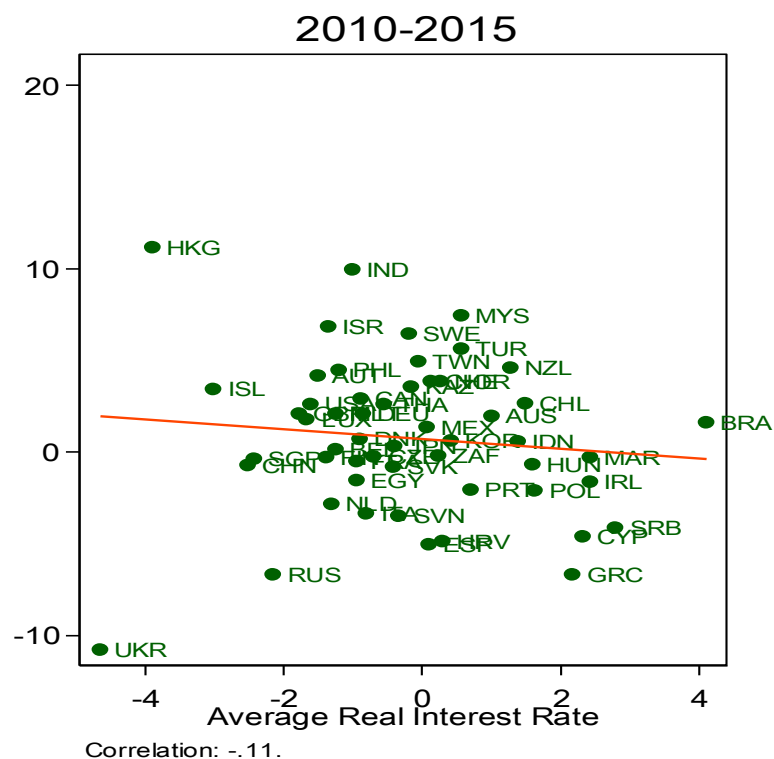
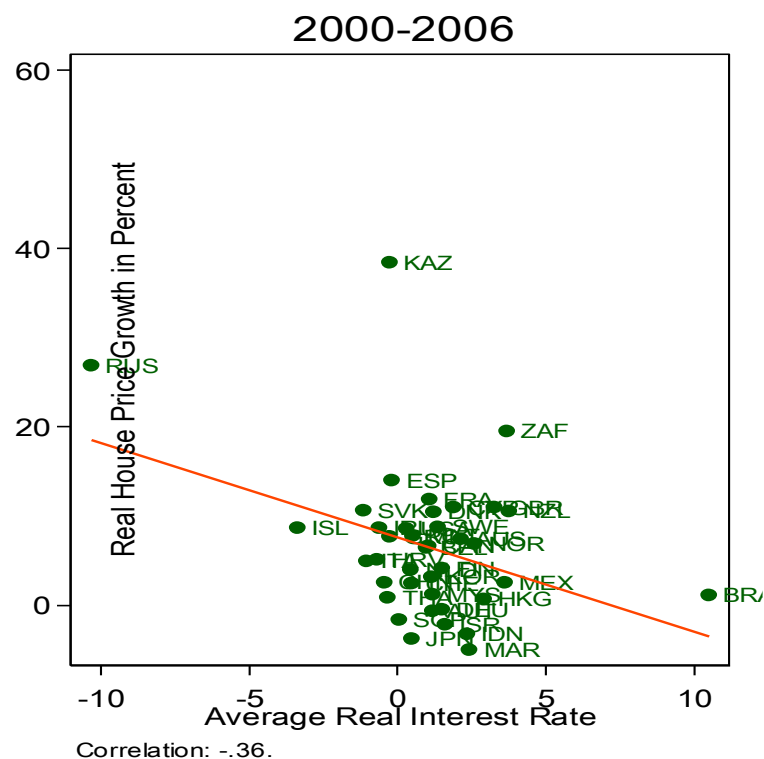
Panel C

Change in Fiscal Stance and Real House Prices Growth



# House Prices and Real Interest Rate

Panel D  
Average Real IR and Real House Prices Growth



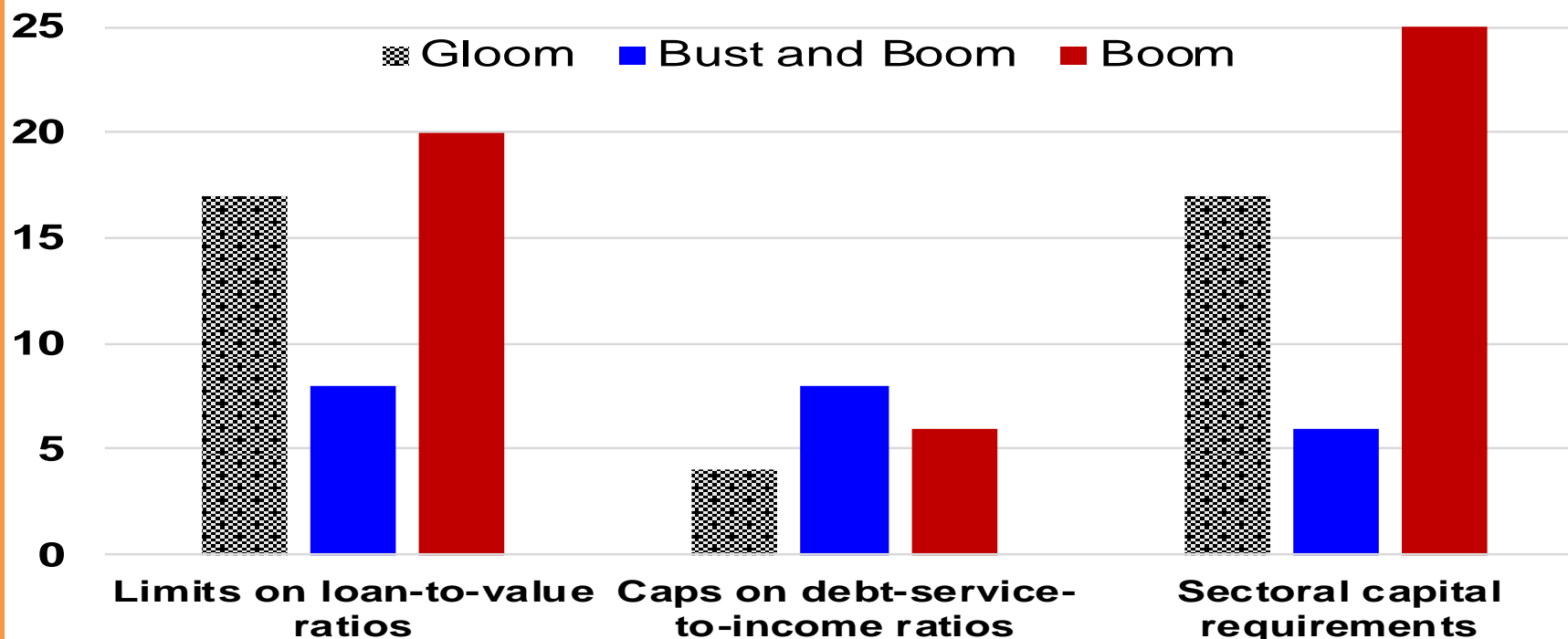
# Drivers of house prices

Independent Variable	(1)	(2)	(3)
Real GDP (growth)	0.3		0.2
Working age population (growth)	0.1	0.1	0.1
Short-term interest rate	-0.4	-0.5	-0.6
House Price-to-income ratio (lagged)	-0.1	-0.1	-0.3
Credit (growth)		0.1	0.1
Equity prices (growth)		0.06	0.00
Fiscal balance (change)			-0.1
Constant	1.1	2.3	1.5
R-square	0.28	0.30	0.39
Number of observations	3519	3148	2291

# **ACTIVE USE OF MACROPRUDENTIAL POLICIES**

# Use of macroprudential policies

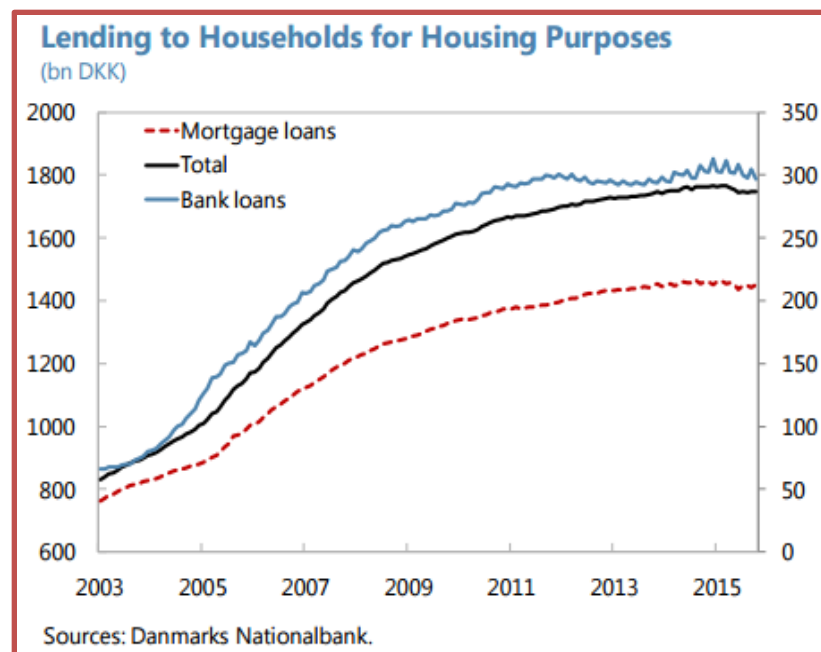
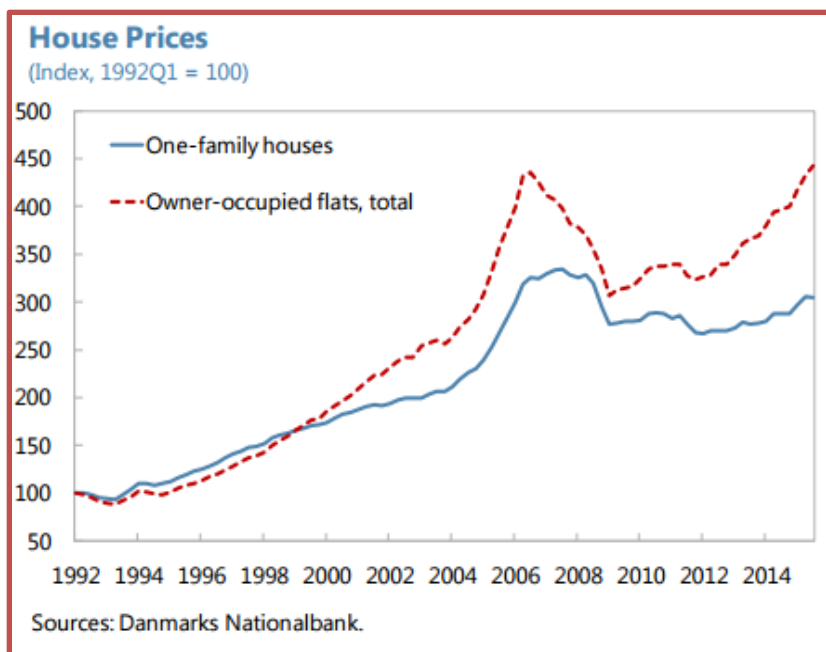
**Number of macroprudential policies implemented and any subsequent tightening: 2007-16**



Source: International Monetary Fund



# Denmark: Macroprudential Policy



“In view of the emerging risks, macroprudential policies need to play a primary role in safeguarding financial stability. (...) As the Danish economy is still recovering from the last crisis, new measures must be carefully calibrated to balance the benefits of reduced financial stability risks against any negative short-run impact on growth.”

# Sweden: Macroprudential Policy

**Table 3. Macroprudential Measures Adopted since 2011**

<b>Measure</b>	<b>Implementation</b>
Maximum LTV ratio, 85 percent	October 2010
Risk-weight floor for mortgages, 15 percent	May 2013
LCR regulation, including in euro, U.S. dollar, and total	January 2014
Pillar II capital add-on 2 percent for the four largest banks	September 2014
Risk-weight floor for mortgages, 25 percent	September 2014
Systemic risk buffer 3 percent for four largest banks	January 2015
Counter-cyclical capital buffer activated at 1 percent	September 2015
Amortization requirement	June 2016
Counter-cyclical capital buffer raised to 1.5 percent	June 2016
Counter-cyclical capital buffer raised to 2.0 percent	March 2017

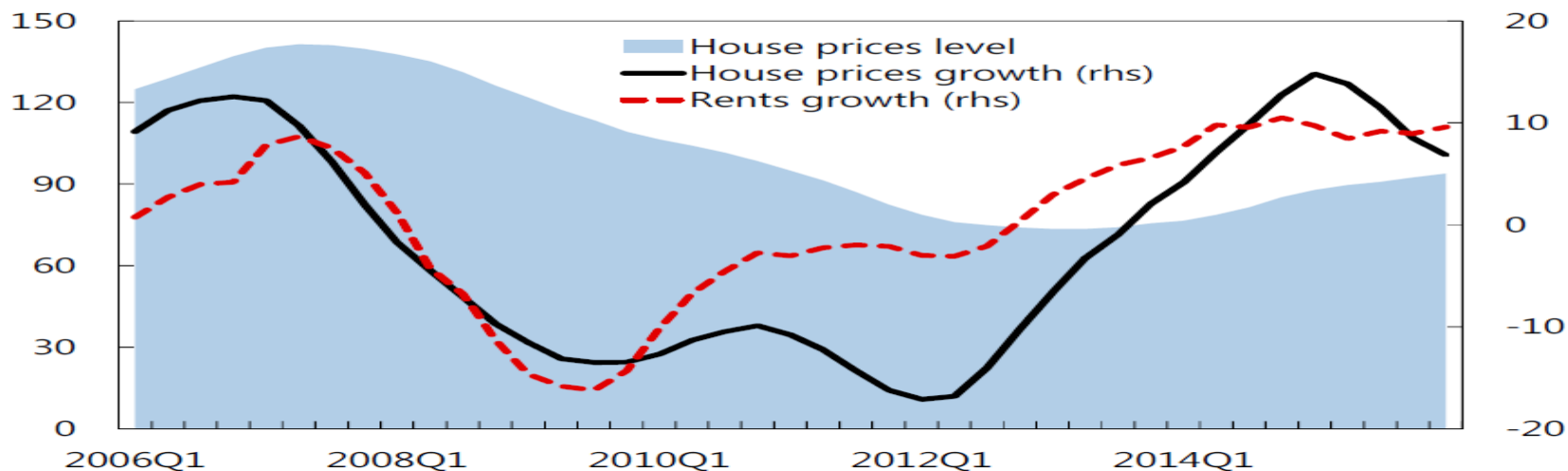
Sources: IMF staff based on information from the authorities.

# Ireland: Macroprudential Policy

## Residential Housing Market

(Index, 2010=100)

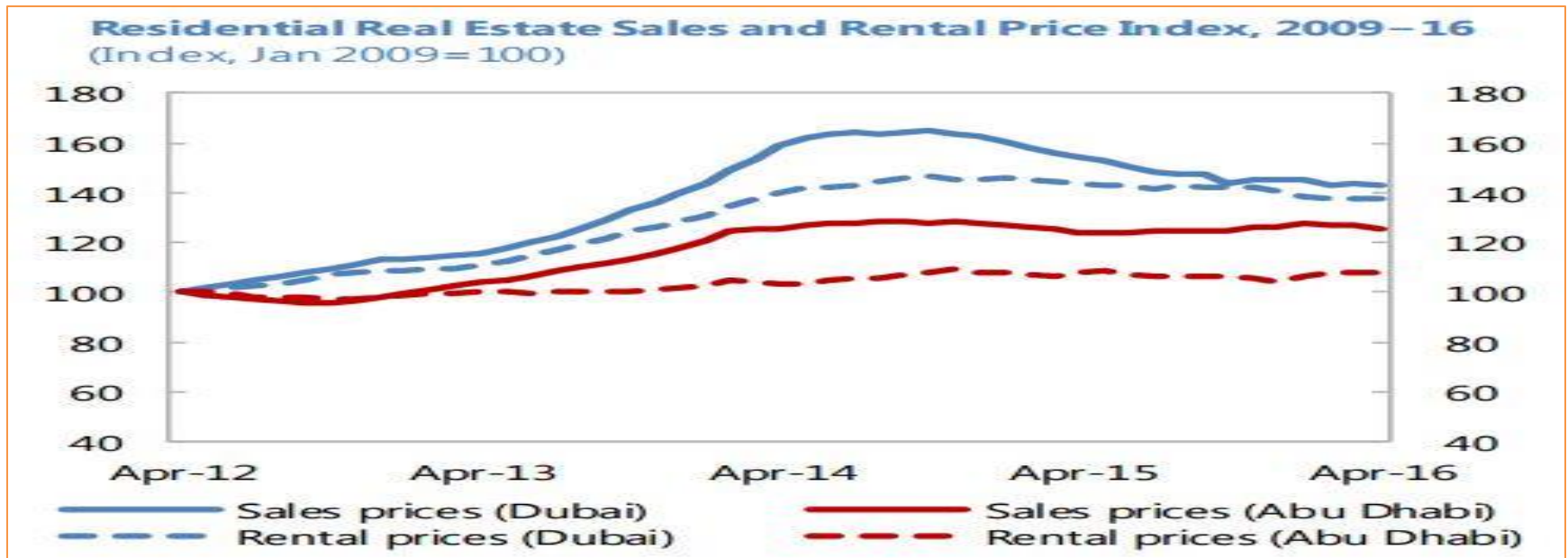
(Percent change y/y)



Sources: Daft.ie; OECD; and IMF staff calculations.

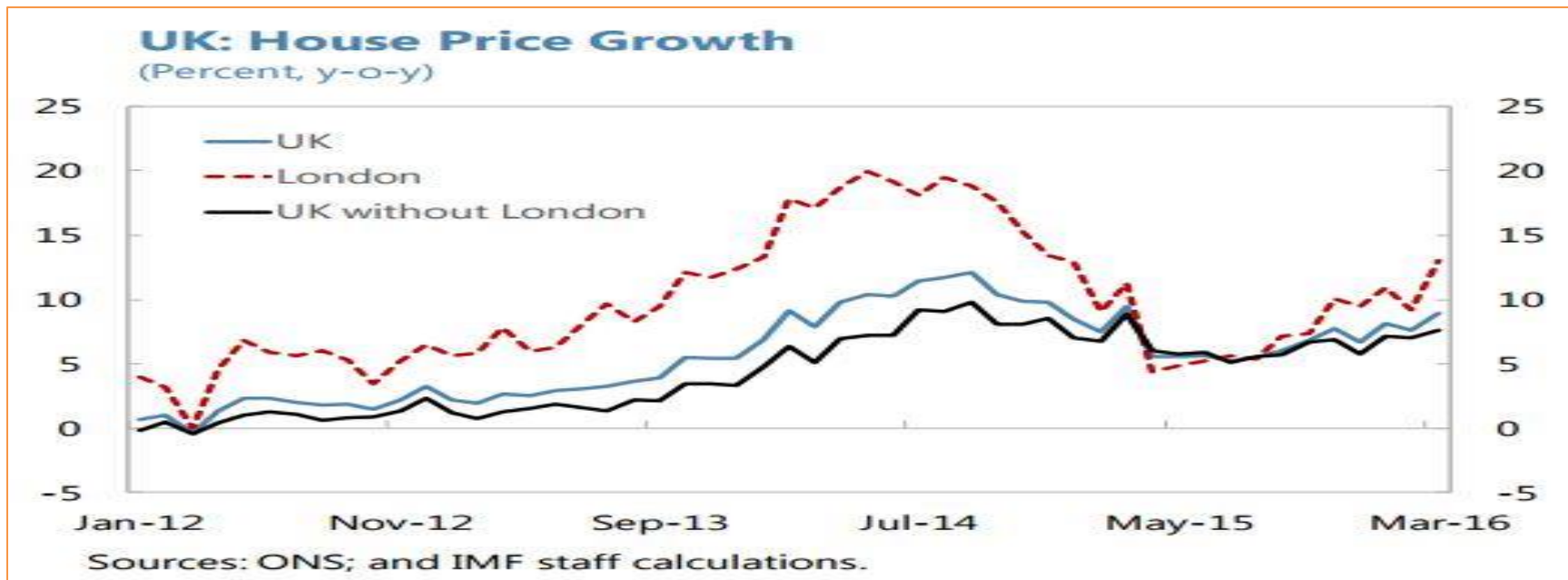
“Residential real estate (RRE) prices and rents continued to increase. Nevertheless, following the abolishment of tax exemptions on capital gains in December 2014 and the introduction of new macroprudential loan-to-value (LTV) and loan-to-income (LTI) limits in February 2015 (...), the market somewhat cooled off: RRE price growth decelerated in late 2015 and the number of mortgage approvals temporarily declined”

# United Arab Emirates: Macroprudential Policy



“Real estate prices have continued to decline, but the quality of the real estate loan portfolio has remained resilient. Structural measures taken in 2014, such as the tightening of industry self-regulation, higher real estate fees, and tighter macroprudential regulation for mortgage lending, have helped contain speculative demand for real estate and led to declining prices.”

# United Kingdom: Macroprudential Policy



“Housing and mortgage markets have re-accelerated since mid-2015 (...) However, the recent acceleration in housing markets could partly be a temporary response to tax changes (...) Macroprudential policies will need to be tightened later this year if the acceleration does not prove temporary (...)”

# Acknowledgments

- I am grateful to Hites Ahir for helping me put together this presentation, to Nathalie Gonzalez-Prieto for the empirical work on the drivers of global housing prices, and to Erlend Nier for providing the data on macroprudential policies.
- This presentation draws on work by the IMF's Global Housing Watch team at the IMF, which also includes Richard Koss, Grace Li and Alessandro Rebucci (Johns Hopkins University).
- I am grateful to the IMF Housing Markets group for their review of this document.