HOUSING SUPPLY IN OECD COUNTRIES: RESPONSIVENESS AND ECONOMIC CONSEQUENCES

Christophe André
OECD Economics Department

Workshop
Macroeconomic Implications of Housing Markets
30 November 2016
European Commission, Brussels

The views expressed in this presentation are those of the author and not of the OECD or of its member countries.

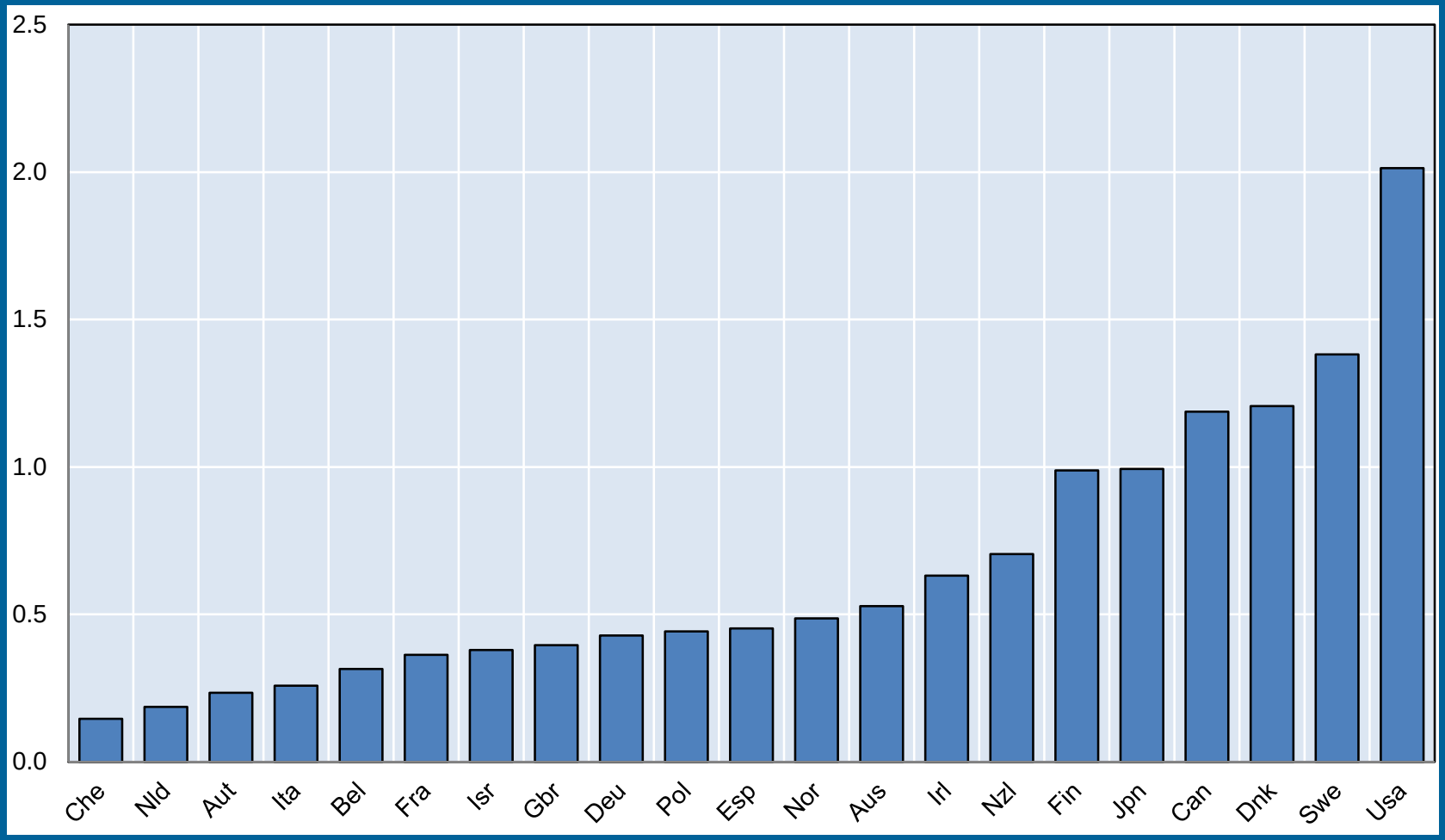
OECD
BETTER POLICIES FOR BETTER LIVES

Outline of the presentation

- Responsiveness of housing supply across OECD countries
- Housing supply developments in selected countries
- Variation in supply elasticity within countries
- Economic consequences of supply rigidities
- Housing supply determinants

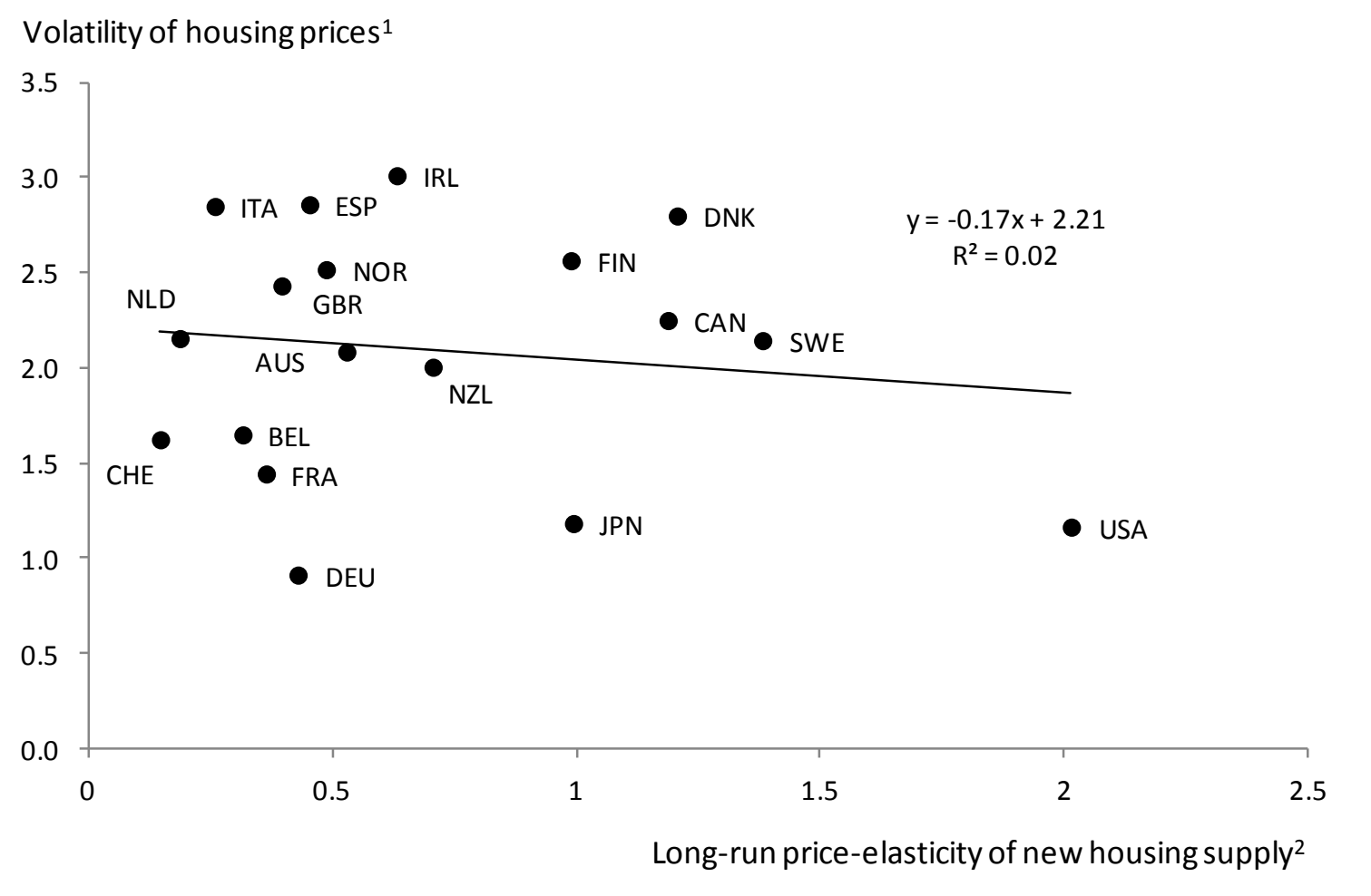
Price responsiveness of housing supply

Long-run price-elasticity of new housing supply



Source: Caldera Sánchez and Johansson (2011).

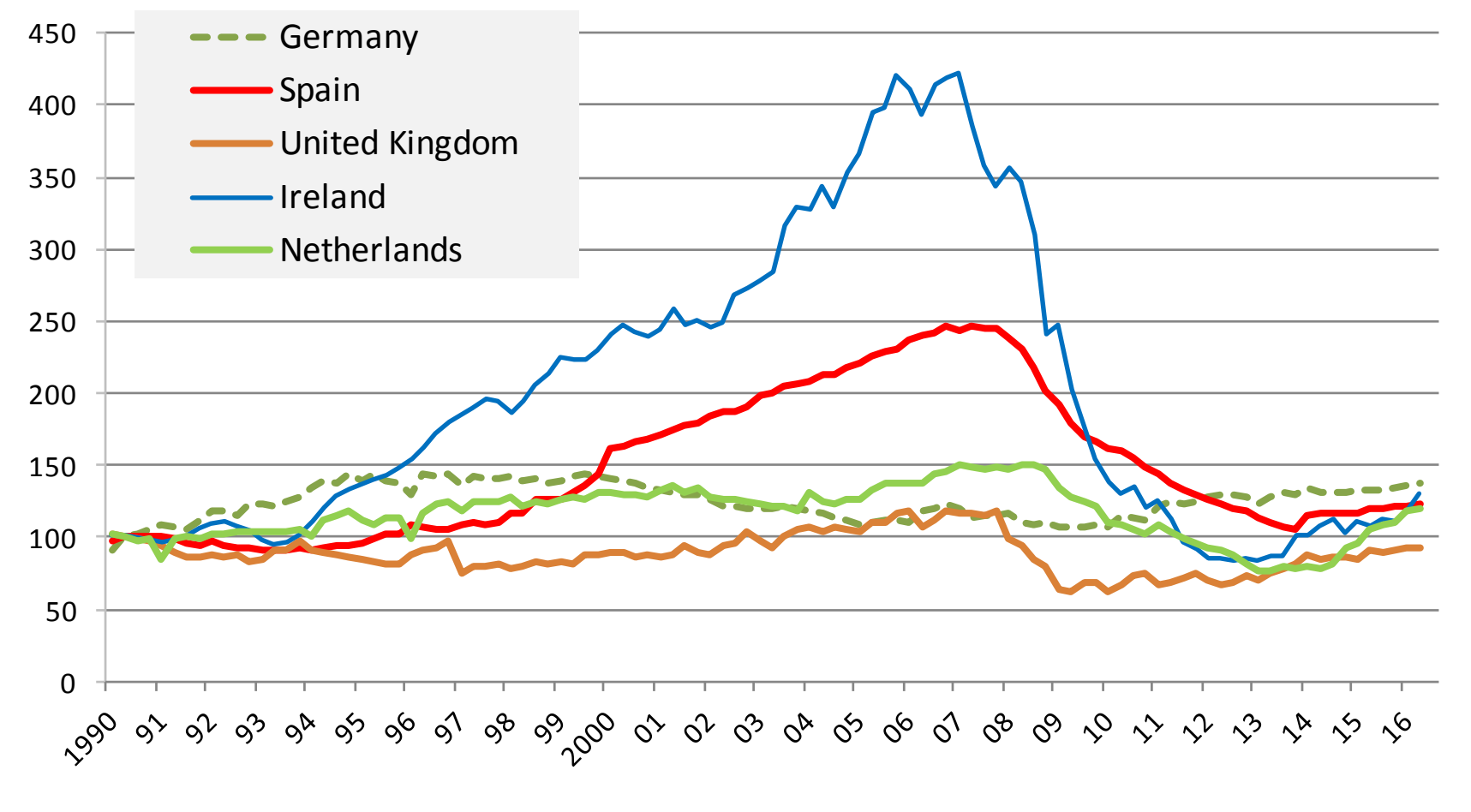
Elasticity of new supply and housing price volatility



1. Standard deviation of quarterly changes in real housing prices (1980:1-2016:2).
2. Estimates from Caldera Sánchez and Johansson (2011).

Residential investment in selected countries (1)

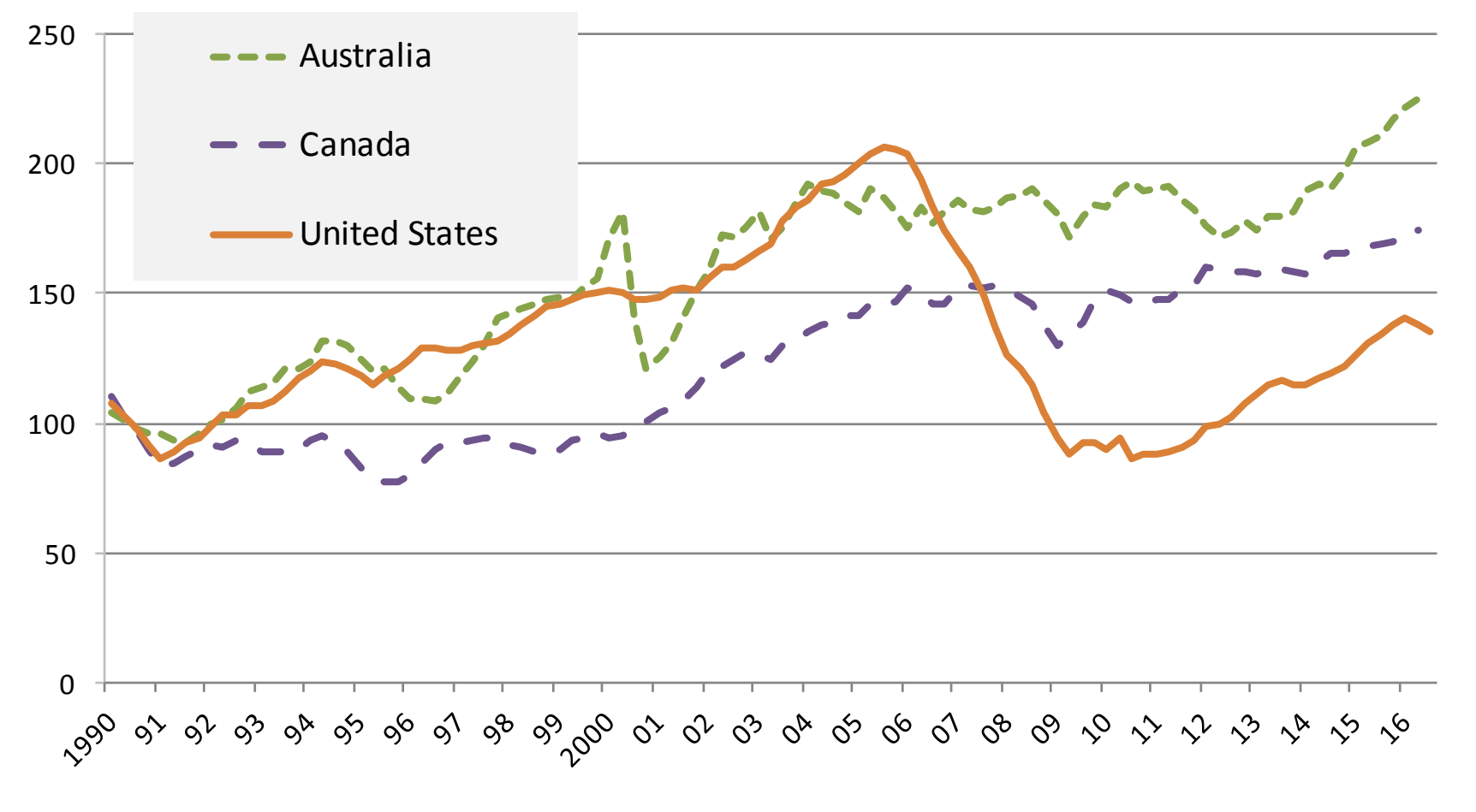
Index, 1995=100



Source: OECD Economic Outlook database.

Residential investment in selected countries (2)

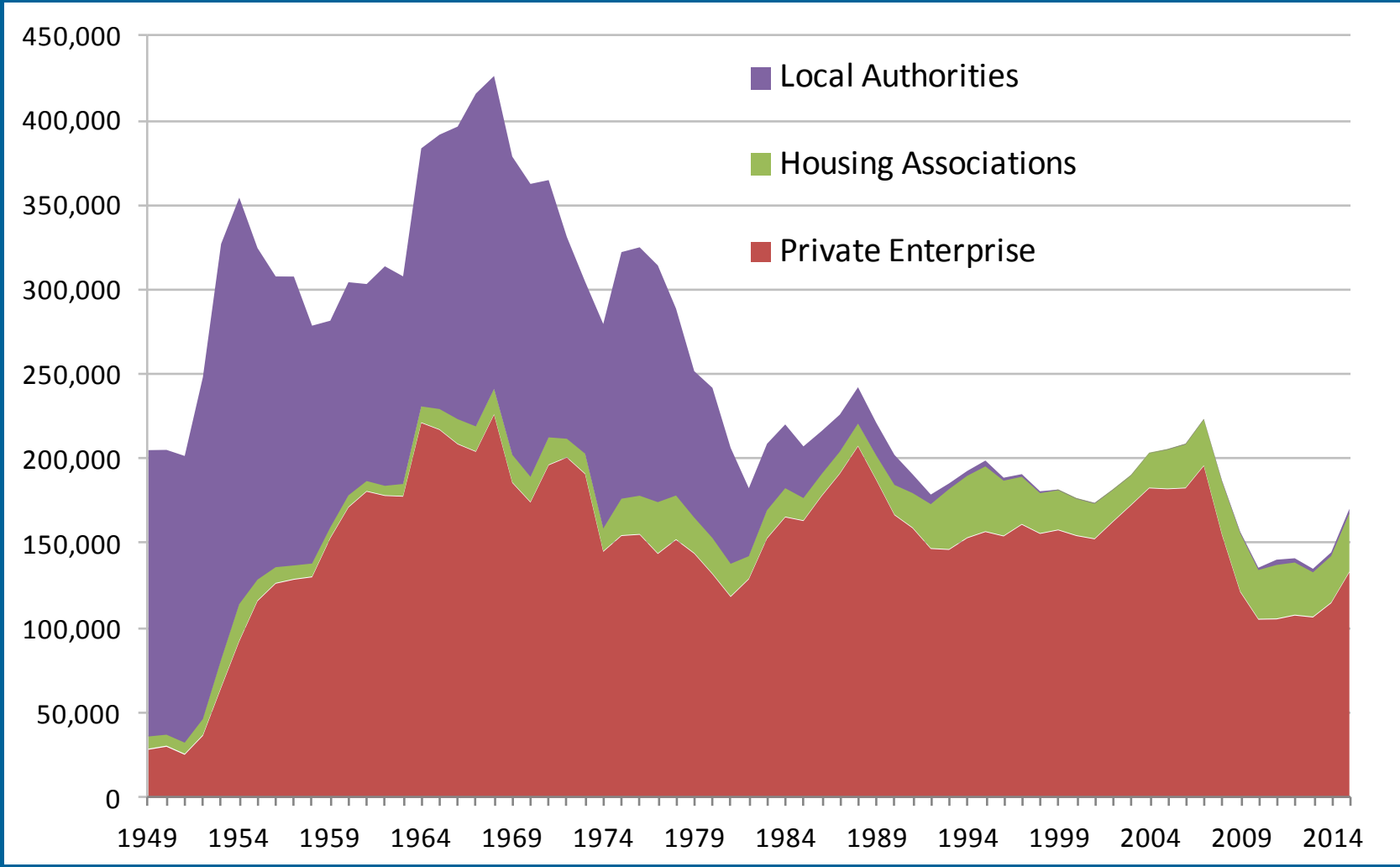
Index, 1995=100



Source: OECD Economic Outlook database.

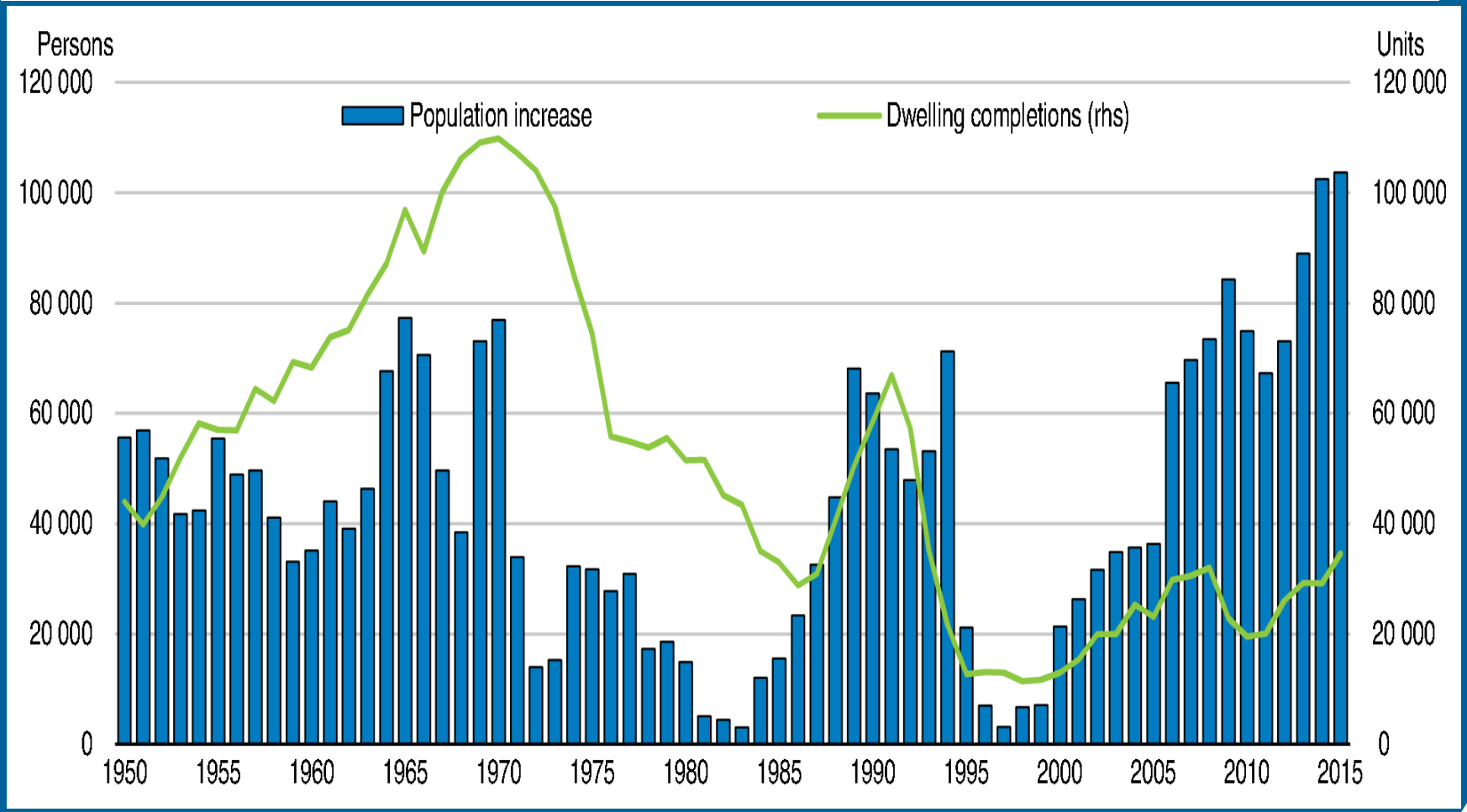
UK: Local Authorities construction has not been replaced

Permanent dwellings completed



Source: Communities and Local Government Live Table 241.

Sweden: Construction lags behind population growth



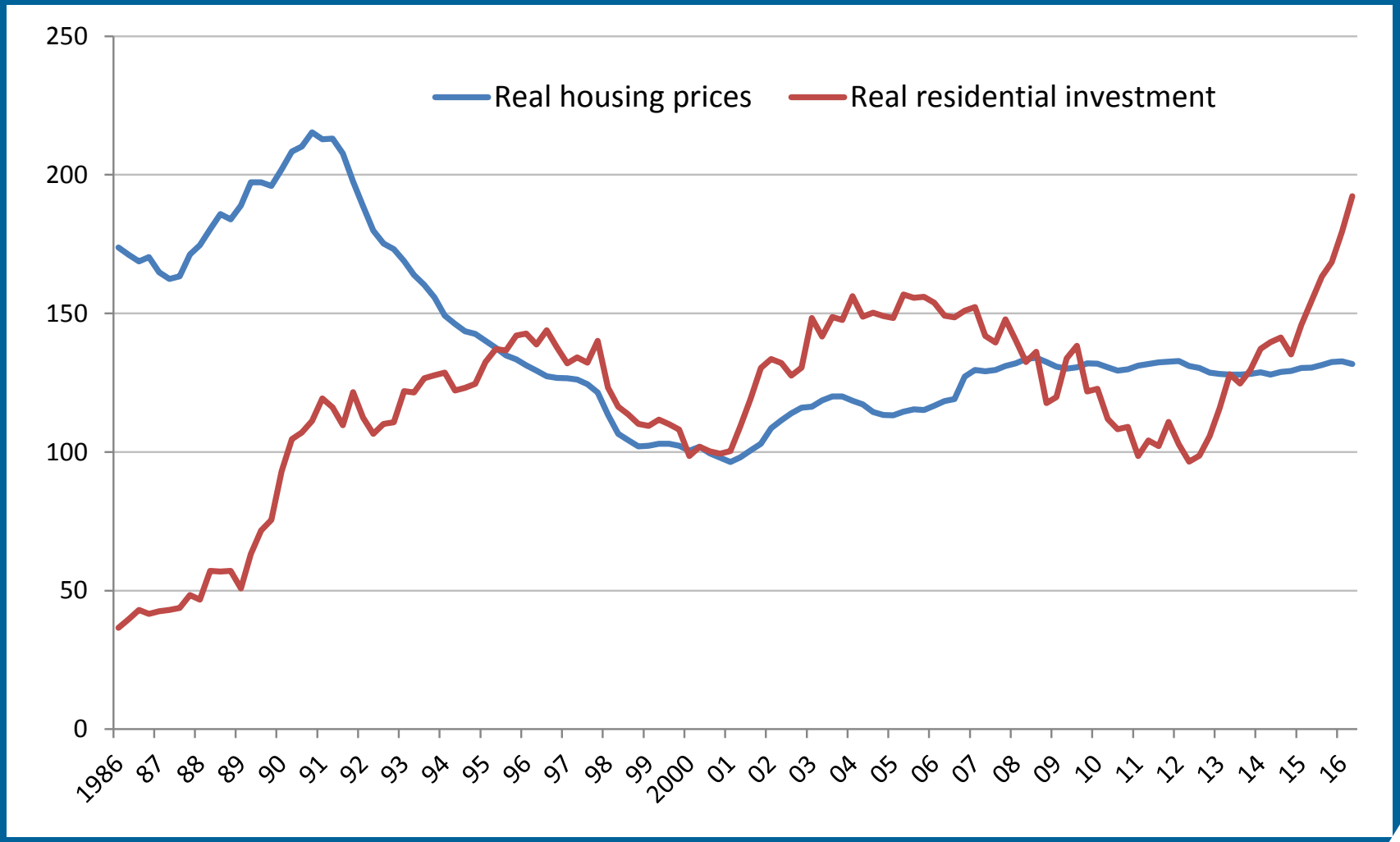
Source: Statistics Sweden.

How did Korea cut its housing shortage?

- Acute shortage of housing in 1990: supply ratio (dwellings/households) around 72%.
- Two Million Housing Construction Plan (1988).
- Residential sites developed by the public sector, construction by the private sector.
- Pre-sale + Guarantee (KHGC) system.
- The dwelling stock increased by more than 50% between 1990 and 2000. The supply ratio was over 100% by 2002.
- Stabilisation of housing prices.
- Note: Population density in Korea is nearly twice as high as in the UK.

Housing prices and investment in Korea

2000 = 100



Source: OECD Economic Outlook database and OECD Analytical House Price database.

Supply elasticities vary widely within countries

- Saiz (2010): From 0.6 (Miami,FL) to 5.45 (Wichita,KS) in US MSAs with population> 500,000.
- Oikarinen et al. (2015): From 0.2 (Helsinki) to 0.8 (Rovaniemi) in Finland's 15 largest cities.
- IMF (2015): From close to zero up to 3.8 in about 150 Swedish municipalities.

Economic consequences of supply rigidities

- Housing shortages, low affordability, risk of homelessness, overcrowding, impact on well-being and energy consumption of long commuting times…
- Reduces competitiveness and attractiveness for investors.
- Hampers labour mobility.
- Increases the risk of housing price bubbles and financial and macroeconomic instability.

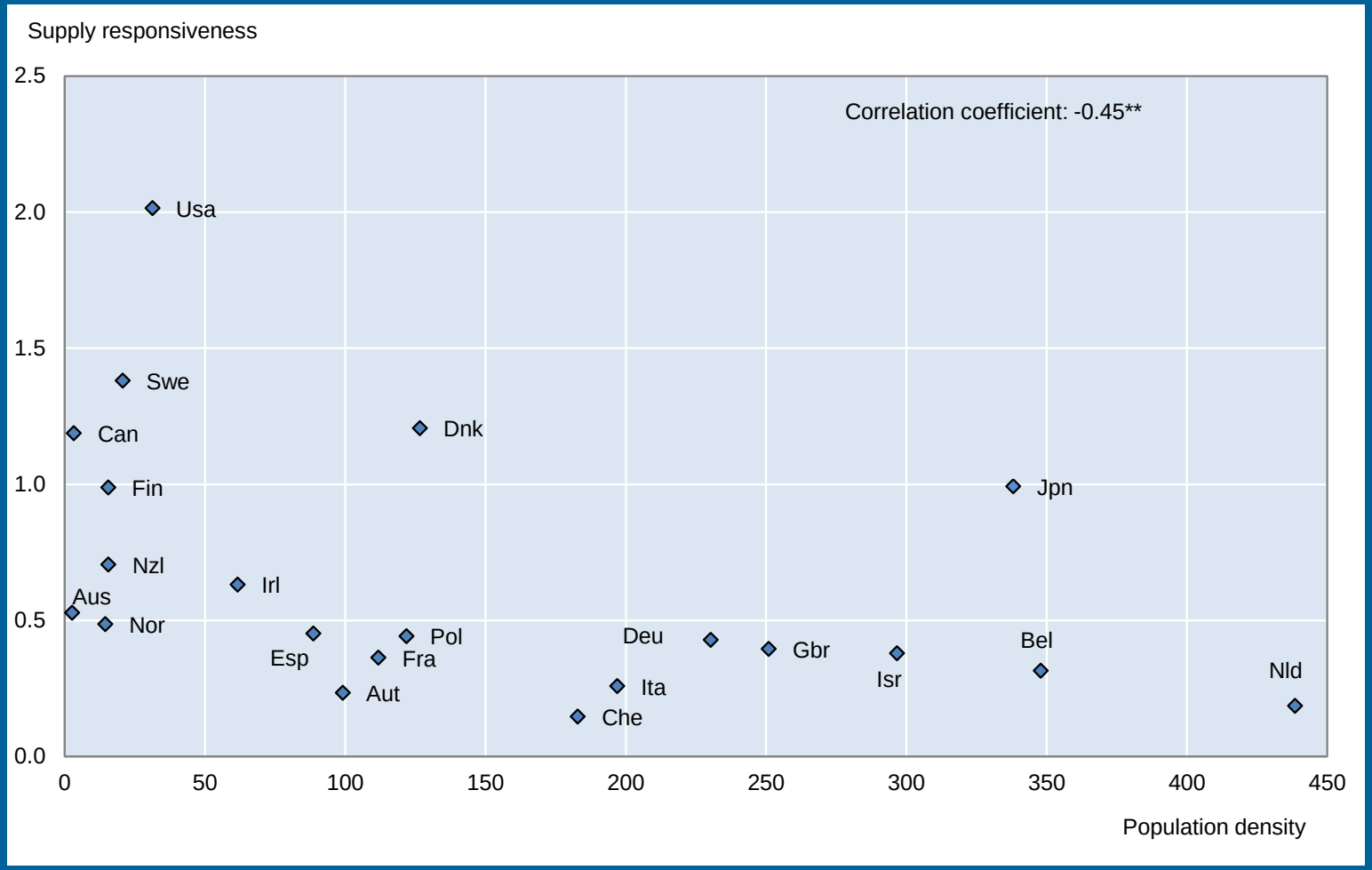
Supply elasticity and housing bubbles

- Glaeser et al. (2008): More elastic housing supply -> fewer and shorter bubbles, smaller price increases. But welfare consequences may be higher because of overbuilding.
- But the pre-crisis boom suggests a more complicated pattern, both in the US and Europe.
- Recent research suggests some explanations for housing price booms in areas with intermediate supply elasticities:
  - Gao et al. (2015): role of information aggregation and learning in housing markets.
  - Nathanson and Zwick (2015): role of speculation in areas with elastic supply, but facing a development constraint in the near future.

Housing supply determinants

- Natural constraints (Saiz, 2010; Oikarinen, 2015).
- Regulatory constraints (Zoning and planning, building codes…).
- Investment taxation and regulations (institutional and buy-to-let).
- Rental regulations.
- Infrastructure (transport, schools, health care services…).
- Financing: credit availability, financial accelerator (Carswell, 2011).
- Housing price expectations and uncertainty.
- Strategic behaviour of real estate developers (Laszek and Olszewski, 2015) and interrelations between housing supply agents (Lux and Sunega, 2009).

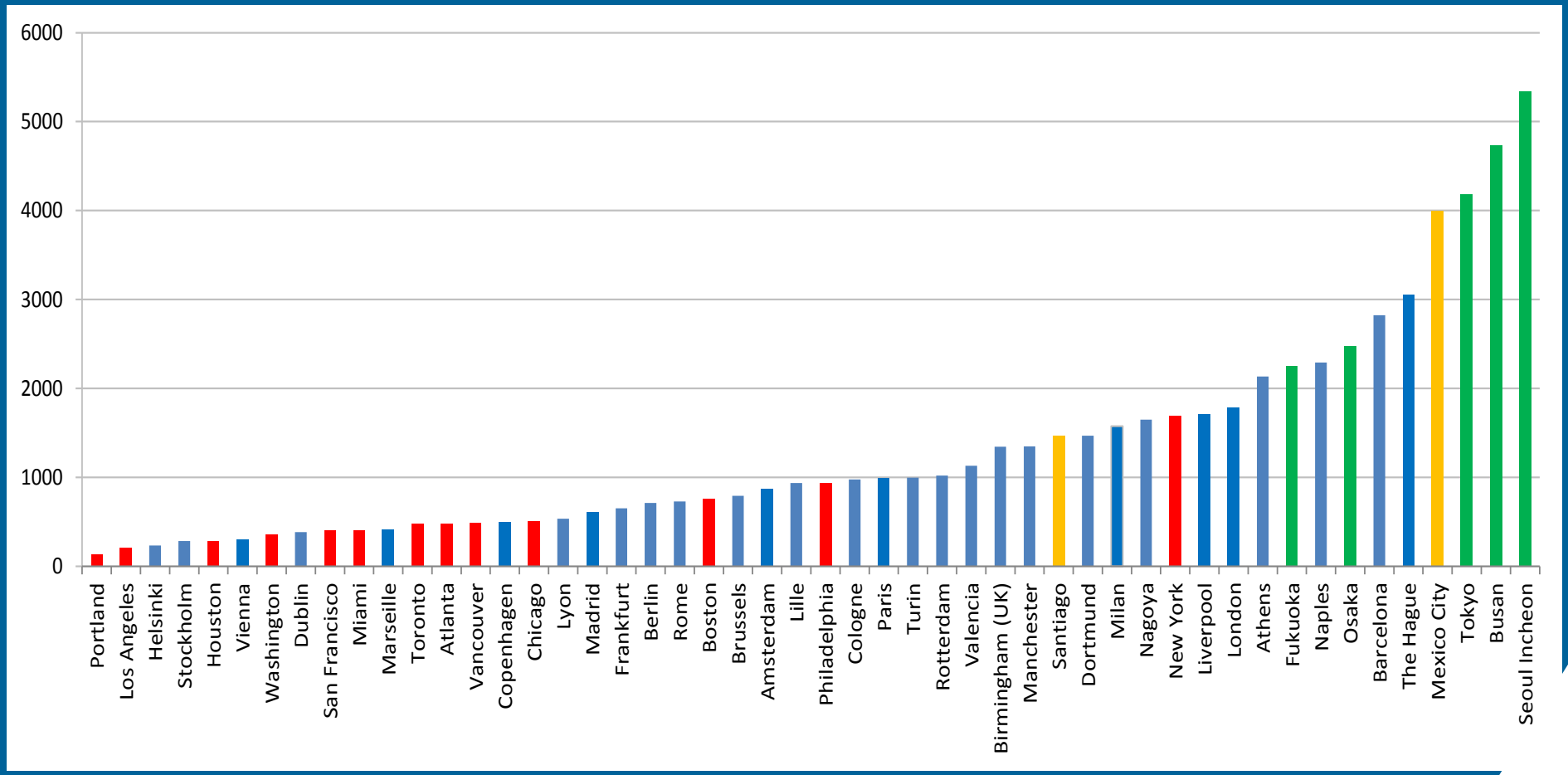
Price responsiveness of supply and scarcity of land



Source: Caldera Sánchez and Johansson (2011).

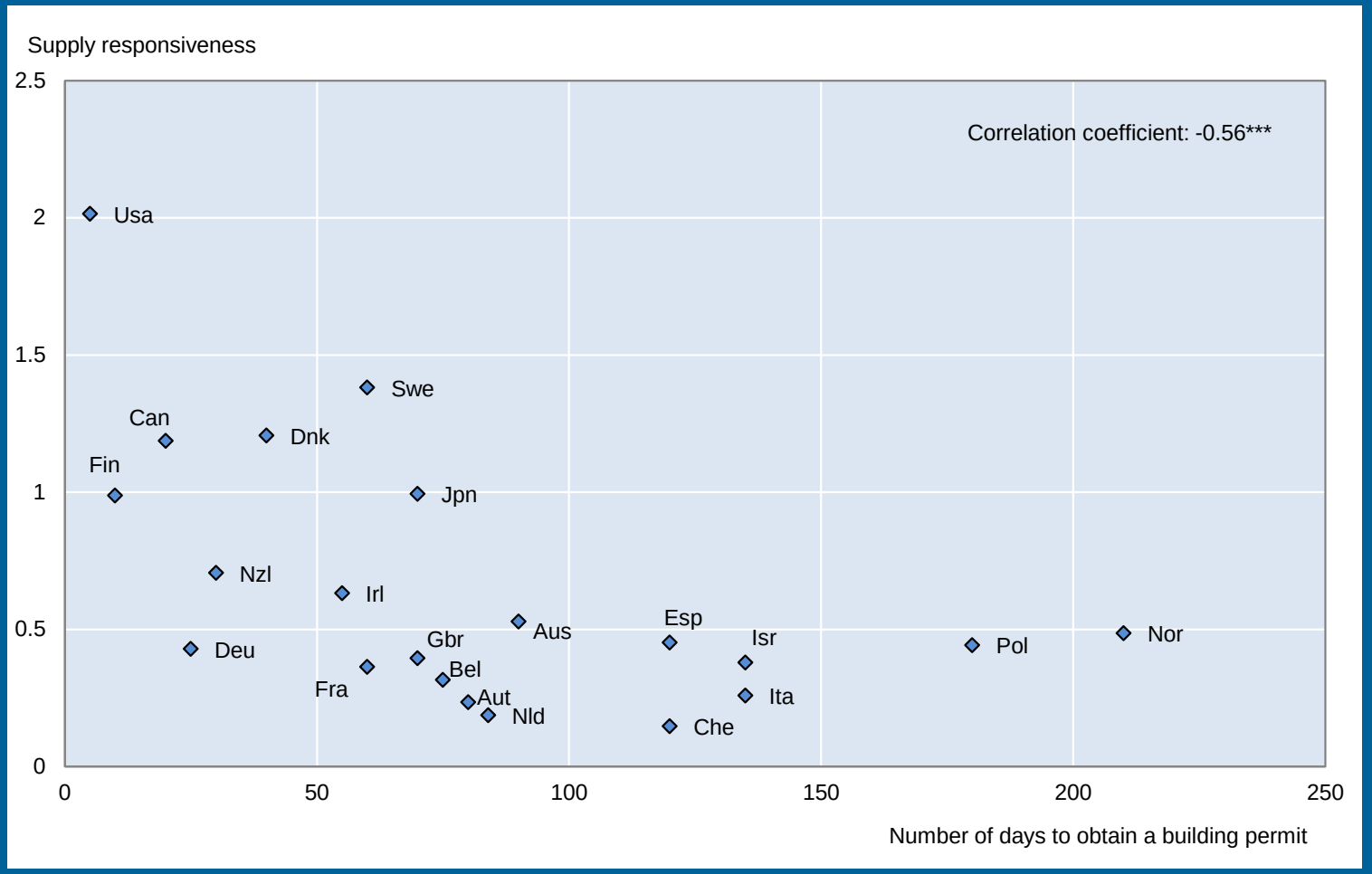
Population density in metropolitan areas

Persons per km^2



Note: Based on functional urban areas.
Source: OECD Metropolitan areas dataset.

Price responsiveness of supply and land-use regulations



Source: Caldera Sánchez and Johansson (2011).

The Governance of Land Use in OECD Countries (forthcoming) (1)

- Why plan? Externalities, balance between private and public interests, ensure efficient spatial development.
- Balance multiple objectives -> Planners' triangle : economic competitiveness, environmental sustainability, social inclusion.
- Land-use regulations are highly segmented horizontally and vertically in most countries.
- Interactions between planning and other policy areas are critical, notably fiscal frameworks and incentives faced by local authorities.

The Governance of Land Use in OECD Countries (forthcoming) (2)

- Developed land covers less than 10% of the landmass of most OECD countries.
- Developed land per capita has declined in 12 out of 28 OECD countries between 2000 and 2012.
- Trade-offs -> The use of less developed land per capita is associated with:
  - Higher per capita GDP growth
  - Lower concentration of air pollutants
  - Higher housing costs

Conclusions

- Housing supply responsiveness varies widely across and within countries.
- Excessively rigid housing supply has a number of negative economic and social consequences.
- The relation between supply elasticities and housing price dynamics is complex.
- More research on supply-side actors behaviour and financing would be useful.
- Land-use planning faces important trade-offs between objectives.
- In many countries land-use governance needs to be strengthened and incentives faced by local authorities reviewed.

THANK YOU !

OECD
BETTER POLICIES FOR BETTER LIVES

References

- Caldera Sánchez, A. and Å. Johansson (2011), "The Price Responsiveness of Housing Supply in OECD Countries", *OECD Economics Department Working Papers*, No. 837.
- Carswell, S. (2011), *Anglo Republic, Inside the Bank that Broke Ireland*, Penguin Ireland, Dublin.
- Gao, Z., M. Sockin and W. Xiong (2015), "Learning about the Neighborhood: The Role of Supply Elasticity for Housing Cycles", *Working Paper*.
- Glaeser, E., J. Gyourko and A. Saiz (2008), "Housing Supply and Housing Bubbles", *Journal of Urban Economics*, 64.
- IMF (2015), *Sweden: Selected Issues, IMF Country Report*, No. 15/330.
- Laszek, J. and K. Olszewski (2015), "The Behaviour of Housing Developers and Aggregate Housing Supply", *Narodowy Bank Polski Working Paper*, No. 206, Warsaw.
- Lux, M. and P. Sunega (2010), "Interrelations Between Housing Supply Agents: The Metropolitan Housing Market in Prague", *Post-Communist Economies*, 22:1.
- Nathanson and Zwick (2015), "Arrested Development: Theory and Evidence of Supply-Side Speculation in the Housing Market", mimeo.
- OECD, *The Governance of Land Use in OECD Countries* (forthcoming).
- Oikarinen, E., R. Peltola and E. Valtonen (2015), "Regional variation in the elasticity of supply of housing, and its determinants: The case of a small sparsely populated country", *Regional Science and Urban Economics* 50.
- Saiz, A. (2010), "The geographic determinants of housing supply", *Quarterly Journal of Economics*, 125 (3).