Comments: “A Bird’s Eye View of OECD Housing Markets”

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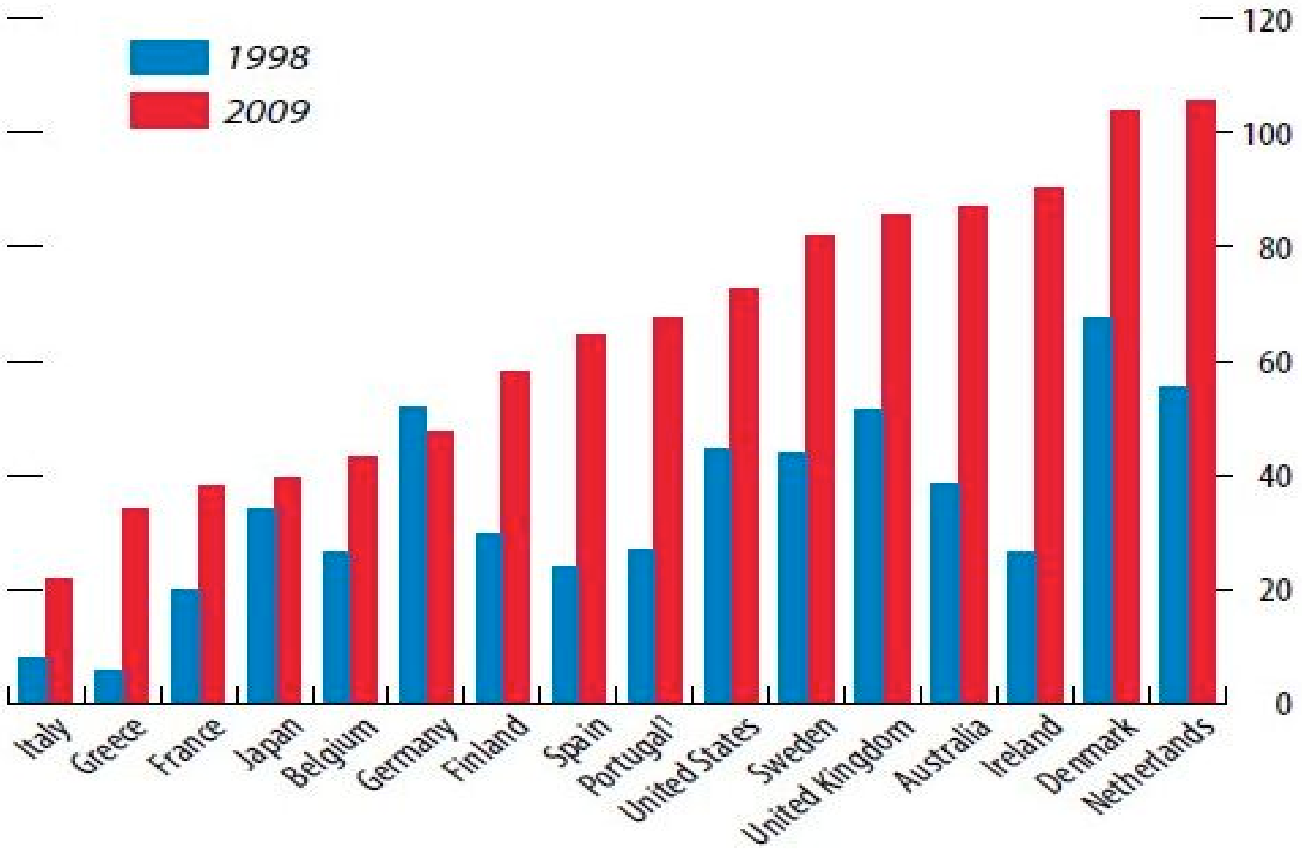
OECD Housing Markets: 1970-2009

- Very good comprehensive survey
- Most countries experienced a significant house price boom late 1990s onward
  - House price-to-income and house price-to-rent reached historic highs
  - Fundamental factors explain much of P^H growth
  - Falling interest rates a major factor 95-04
  - Appreciation expectations appear to take over after 2004
  - But Miles and Pillonca estimations of relative contributions highly sensitive to elasticity assumptions

Role of the Mortgage Markets

- André notes the importance of mortgage innovation but doesn’t isolate its influence
- A number of studies have focused on the role of financial liberalization/mortgage innovation as a significant factor in the boom/bust
  - ECB (2009) – deregulation and housing boom/bust
  - Mian and Sufi (2009) – securitization in US
  - Favilukis, Kohn and Ludvigson (2011) – bank credit US
  - Duca, Muellbauer and Murphy (2009) – LTV of first time buyers
  - Muellbauer and Murphy (2008) – credit conditions index interacting with nominal and real interest rates substantially improve house price estimation

Growth in Mortgage Debt-to-GDP



Source: www.economyinpictures.com

Growth in Mortgage Debt

- Rise in debt due in part to rise in house prices
- Evidence that loosening underwriting guidelines for sub-prime and limited documentation borrowers fueled housing market expansion 2004-06
  - Wilcox (2009), Levitin and Wachter (2011)
- But causality may run the other direction
  - House price appreciation expectations lead to relaxed underwriting and increase in mortgage debt
    - Guttentag and Herring (1984) – “disaster myopia”
    - Brueckner, Calem and Nakamura (2011)
- Scanlon, Lunde and Whitehead (2008) document that relaxed lending conditions and product innovation were present in Australia, Europe

Mortgage Product Innovation

- Affordability the ultimate brake on house price increase
- Market response in the form of mortgage product innovation to improve affordability – along with loosened underwriting kept the boom going
  - Shift to ARMs – often with teasers
  - Longer term
  - Interest only
  - Negative amortization
- First three prominent in other countries but neg am loans unique to US
  - But at peak only 1/3 of US mortgages ARM

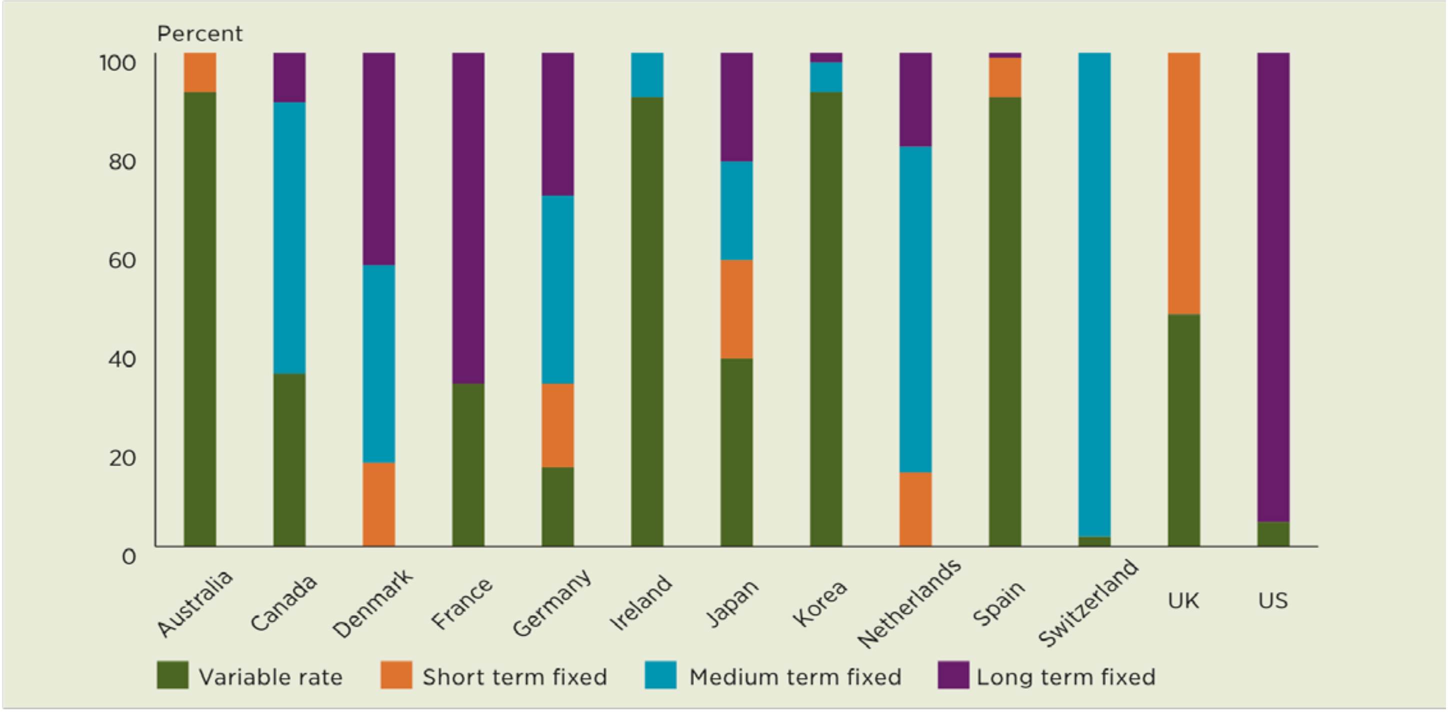
Mortgage Products and Housing

- Markets dominated by ARMs more sensitive to monetary policy
- With prepayment and low/falling interest rates US FRMs became increasingly short term
  - Serial refinance and equity withdrawal
- Mortgage borrowers in ARM countries (AU, ES, UK) have benefited from low and falling rates
  - But substantial risk remains when rates rise
- However many FRM borrowers in the US are locked into high rates due to negative equity

Mortgage Product Differences

- US internationally unusual with FRM dominance

Figure 5
Mortgage Product Interest Variability



Source: Lea 2010

Benefits of the FRM

- Nominal payment stability
- Simplicity
- Prepayment option – a downwardly adjustable instrument
  - Shields borrowers from most interest rate risk
  - Important for mobility

FRM Costs

- Term premium: do borrowers need interest rate protection for 15-30 years?
- Prepayment premium: all borrowers pay for the option yet not all benefit from it
  - In Canada and Europe borrowers pay a penalty for financially motivated prepayment; facilitates covered bonds
- Market <u>instability</u>: refinance waves; price volatility
  - Massive derivative exposure for GSEs, large lenders
- FRMs lock borrowers into <u>negative equity</u> in declining house price environment
- Affordability (tilt) problem with inflation

Policy Differences

- André notes that policy factors can fuel or amplify housing booms
- The US is internationally unusual in the degree to which it subsidizes owner-occupied housing
  - In most countries mortgage interest is either non deductible or limited
  - Only Canada and the Netherlands have government mortgage insurance programs
  - Only Canada and Japan have the equivalent of Ginnie Mae; <u>no major developed country has a GSE</u>
    - GSE mortgage and security purchase fueled the credit bubble

The Bust

- André provides a comprehensive review of the drivers of housing booms but less on the busts
- The US had less of a housing boom than many countries yet only Ireland has had a comparable bust. Why has the US fared so much worse?
  - Sub-prime and Alt A loans the obvious starting place – only UK had subprime (~8% of lending at the peak requiring significant downpayment). Several countries with limited doc loans but no NINJA
  - Are investment expectations a more significant driver in the US (both up and down)?
  - Is lender tightening greater in US than other countries?
  - Is the FRM lock in effect a significant factor?