

# Household debt and the OECD's surveillance of member states

Workshop on household debt – a challenge for the future?  
Copenhagen – 24 September 2014

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# Outline of the presentation

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## **Household debt and assets across OECD countries**

- Household debt and asset aggregates
- Distribution of debt across household categories

## **Drivers of household debt**

- Housing prices and household debt
- Low interest rates and financial innovation

## **Implications for financial stability**

- Credit risk
- Funding risk

## **Macroeconomic implications**

- Household debt and risk of recession
- Depth and length of “high-debt” recessions

## **OECD Surveillance**

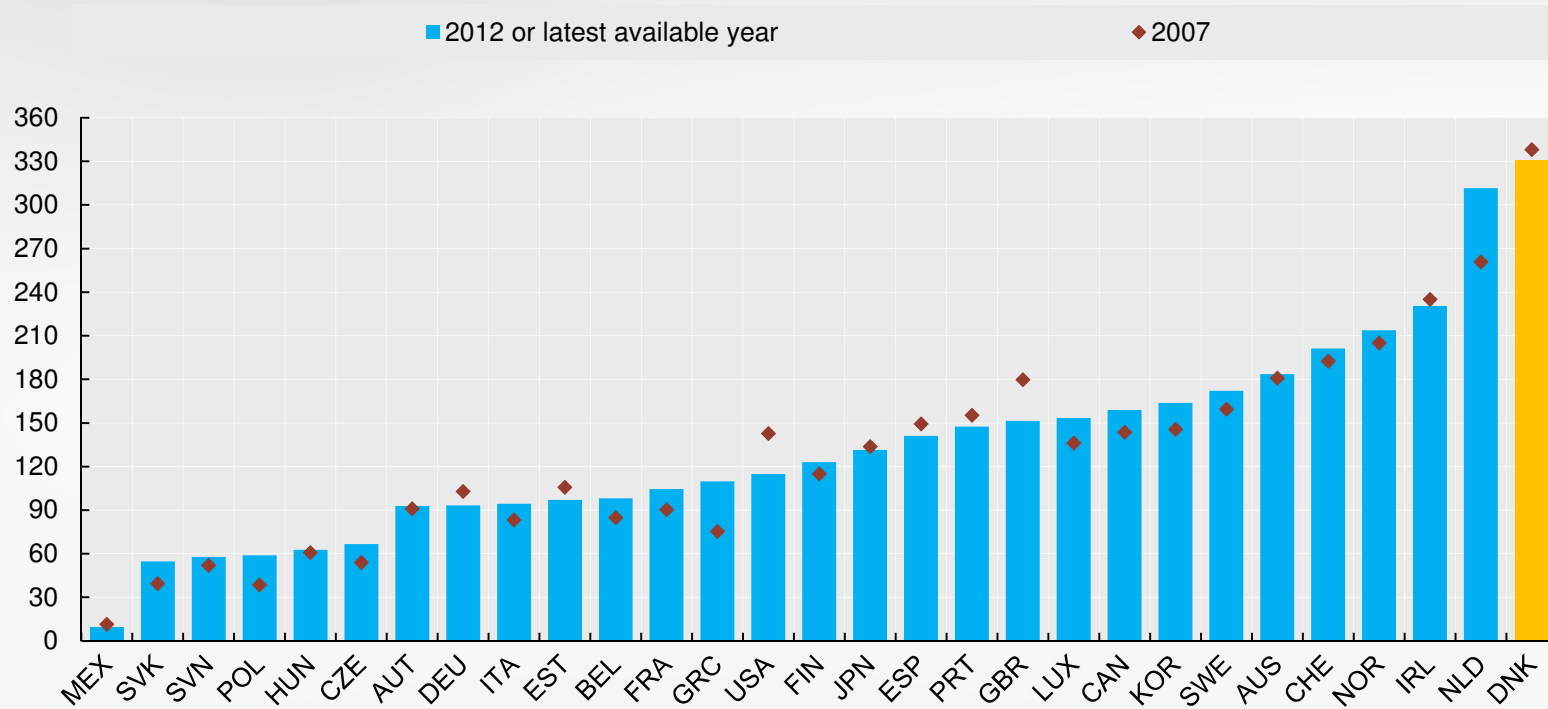
## **Conclusions**

# Household debt and assets across OECD countries



# Household debt

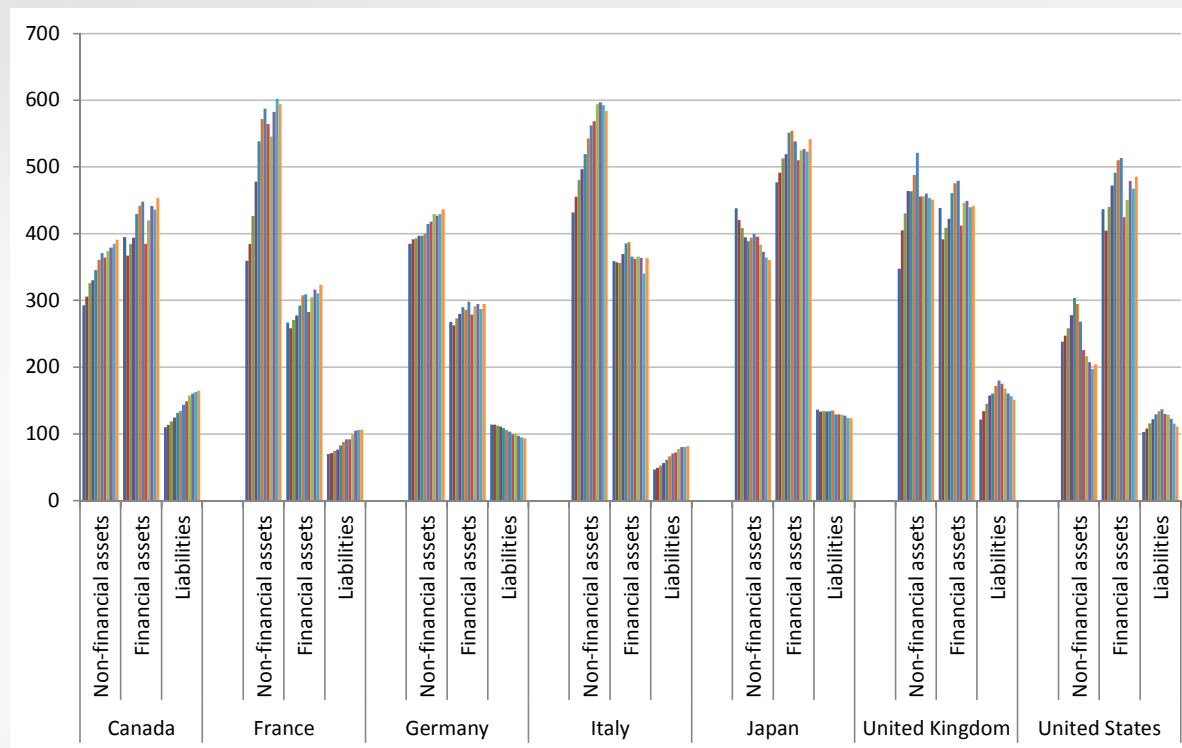
As a percentage of net disposable income



Source: OECD National Accounts Statistics.

# Household assets and liabilities in G7 countries, 2001-2012

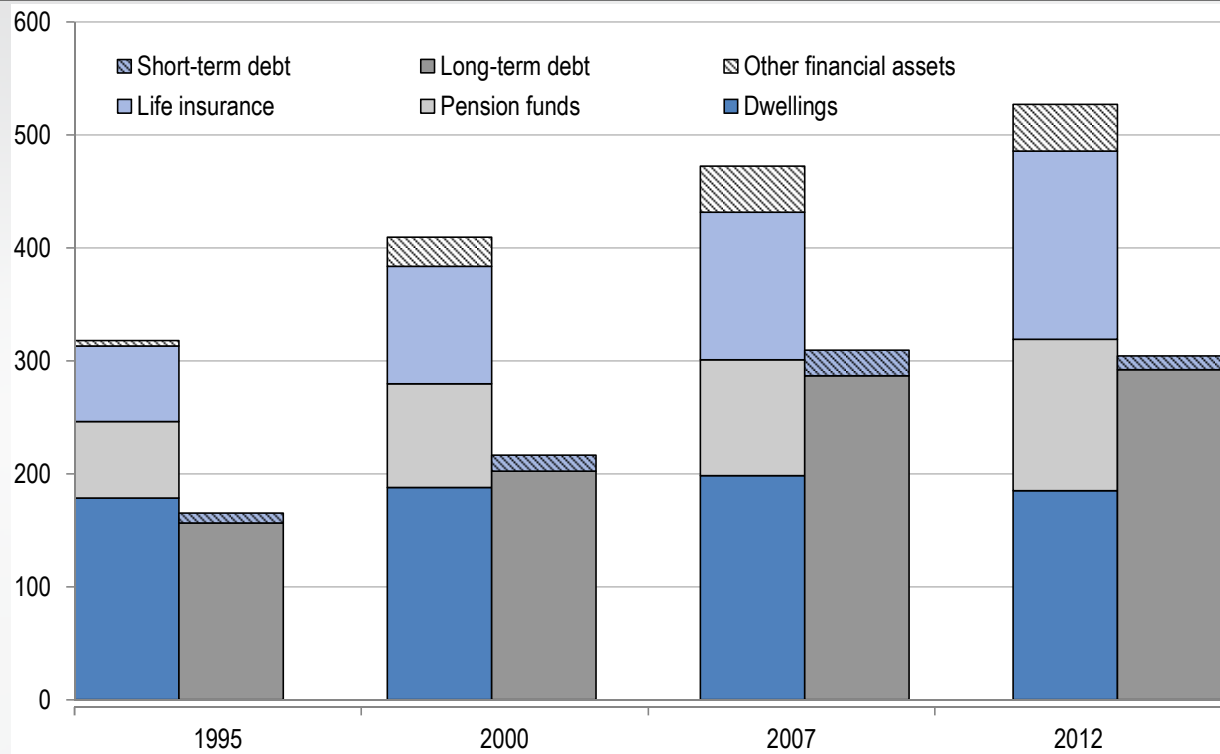
As a percentage of net disposable income



Source: OECD National Accounts Statistics.

# Household assets and liabilities in Denmark

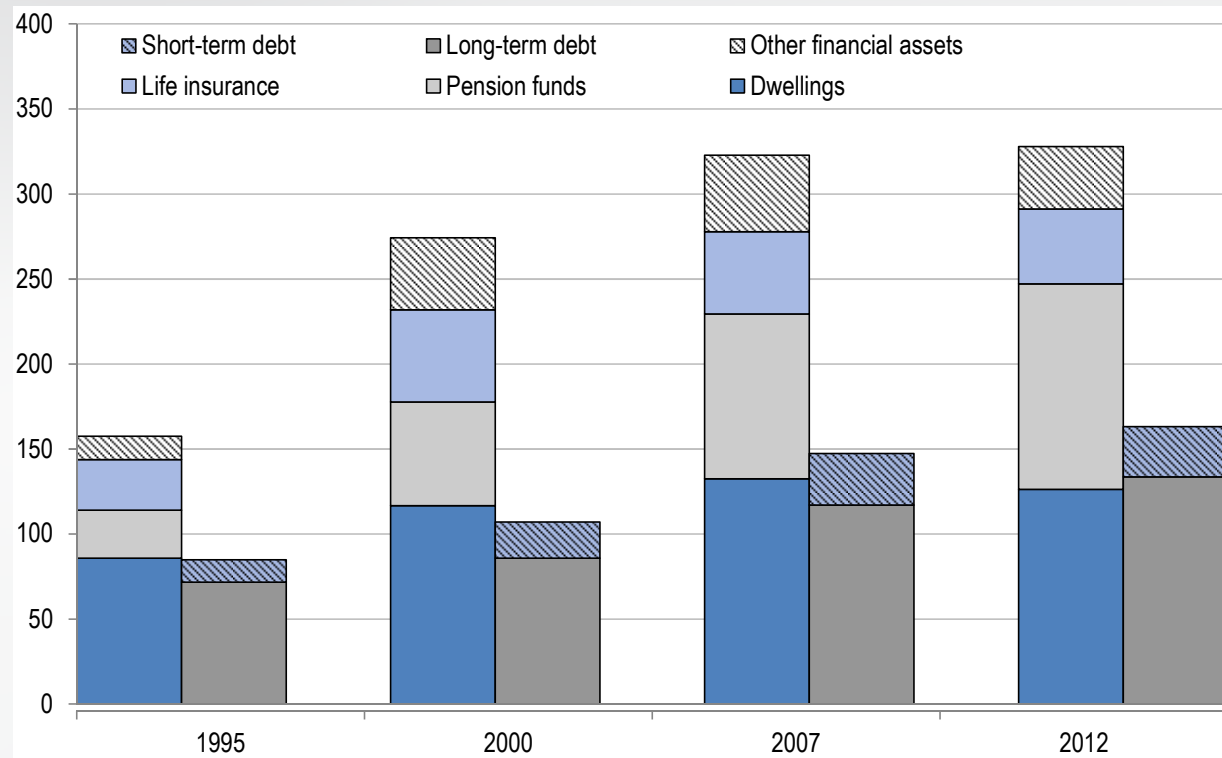
As a percentage of net disposable income



Source: OECD National Accounts Statistics.

# Household assets and liabilities in Sweden

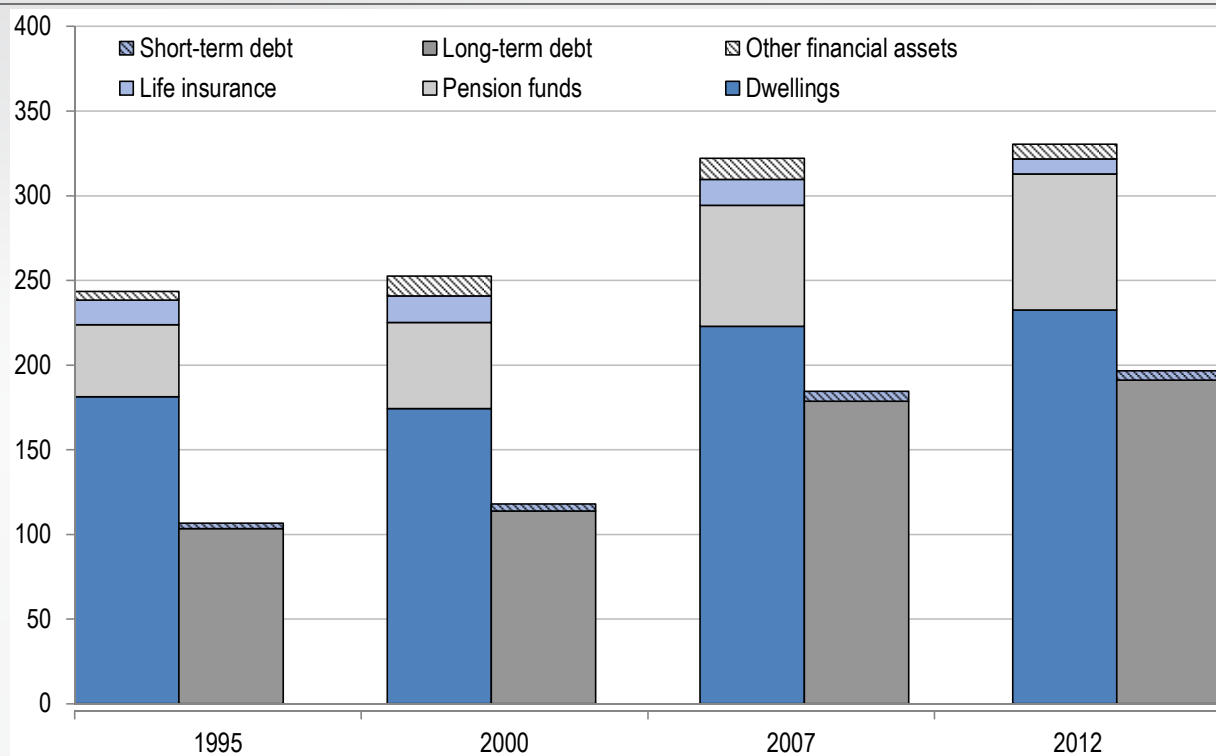
As a percentage of net disposable income



Source: OECD National Accounts Statistics.

# Household assets and liabilities in Norway

As a percentage of net disposable income

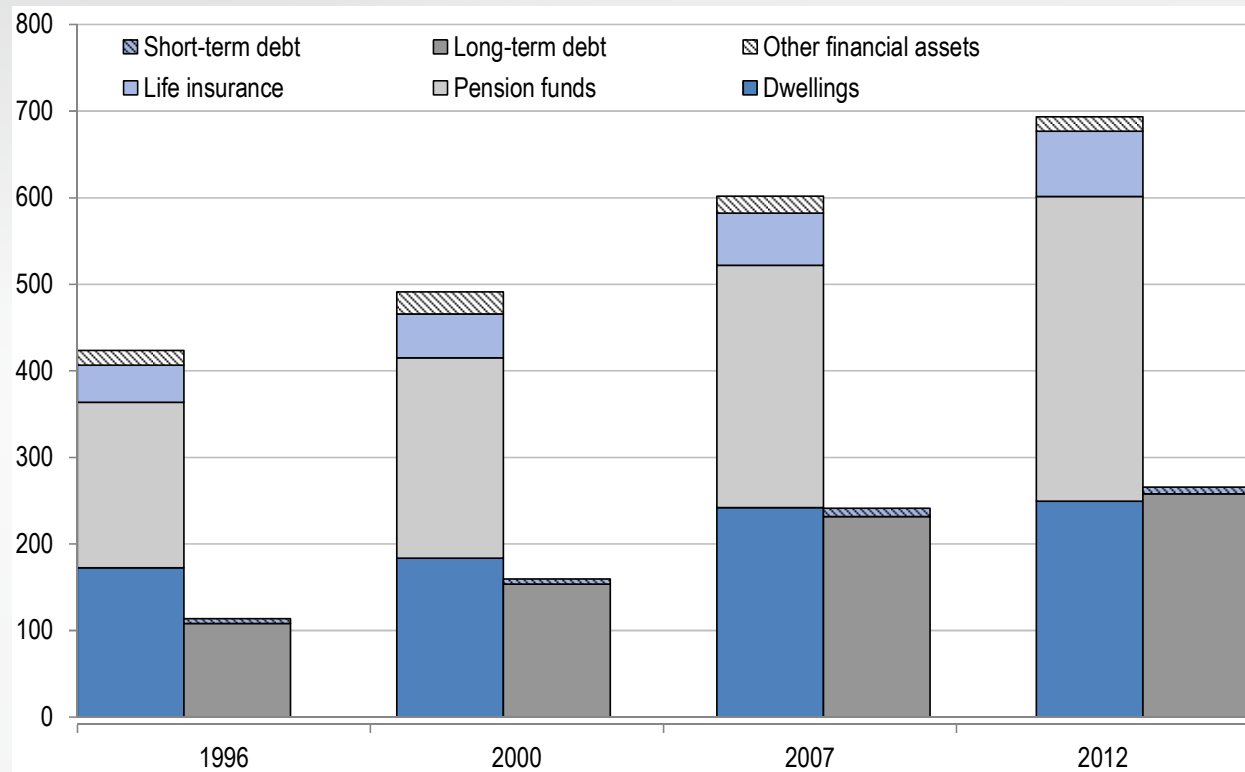


Source: OECD National Accounts Statistics.



# Household assets and liabilities in the Netherlands

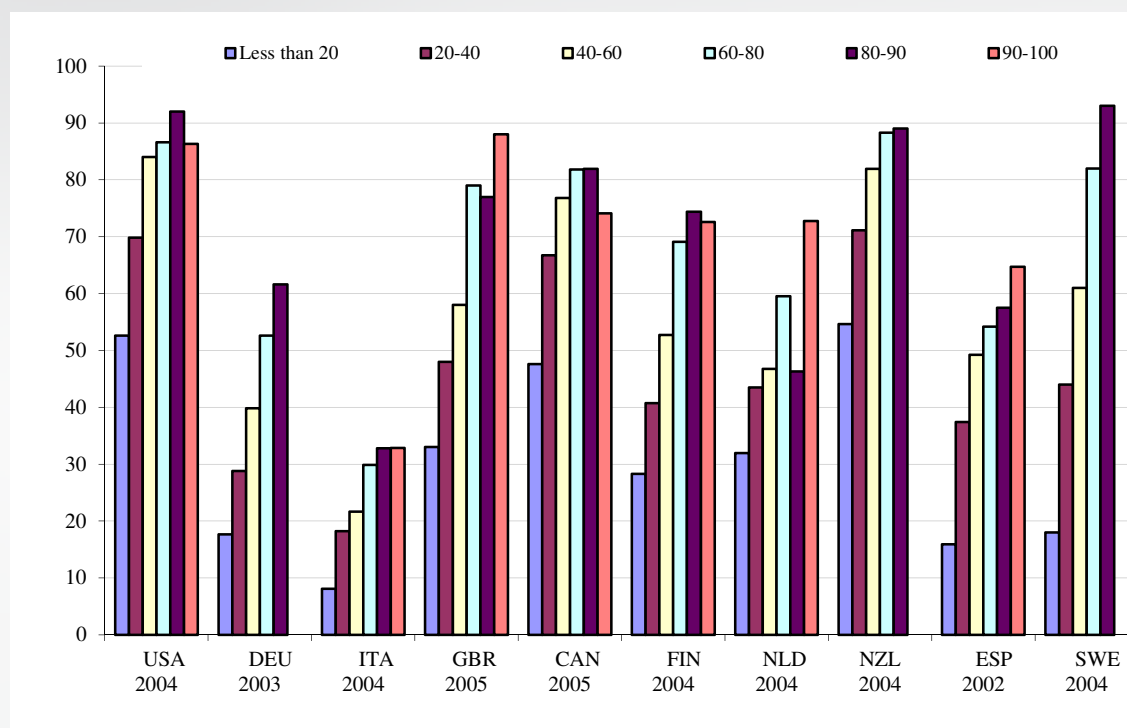
As a percentage of net disposable income



Source: OECD National Accounts Statistics.

# Distribution of debt

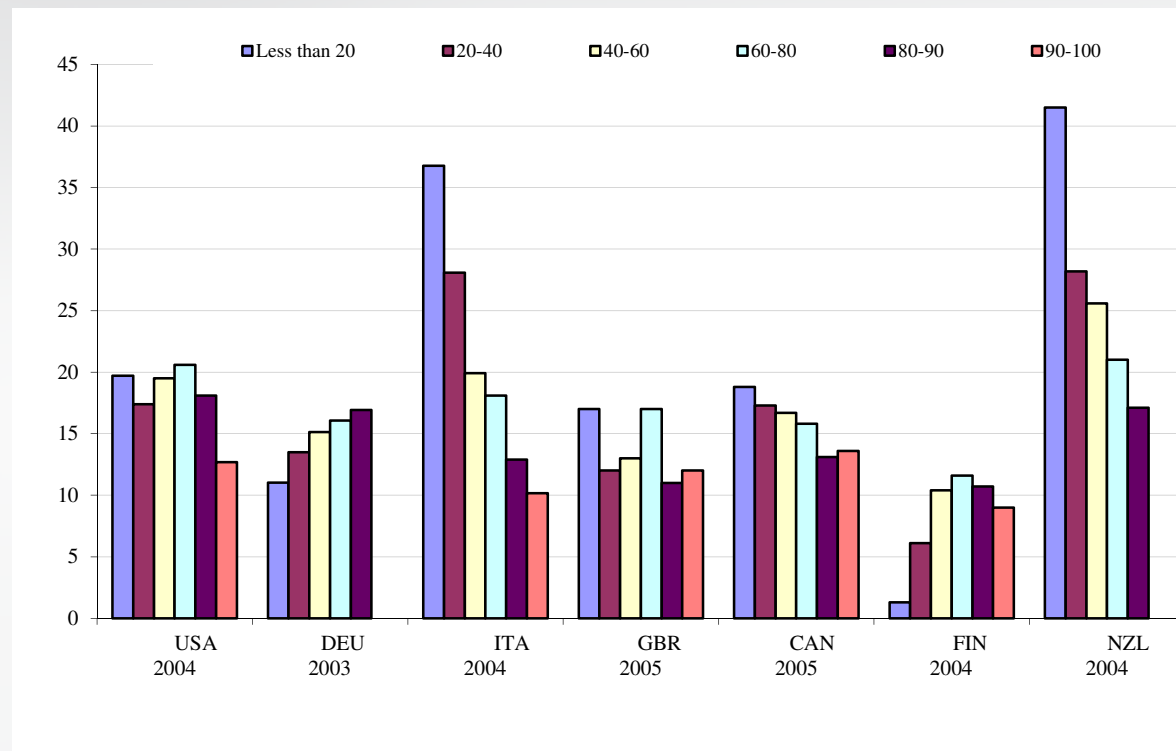
## Percentage of indebted households by percentile of income



Source: Girouard et al. (2006), OECD Economics Department Working Paper No. 535.

# Distribution of debt service burden of indebted households

## Per cent of disposable income by percentile of income



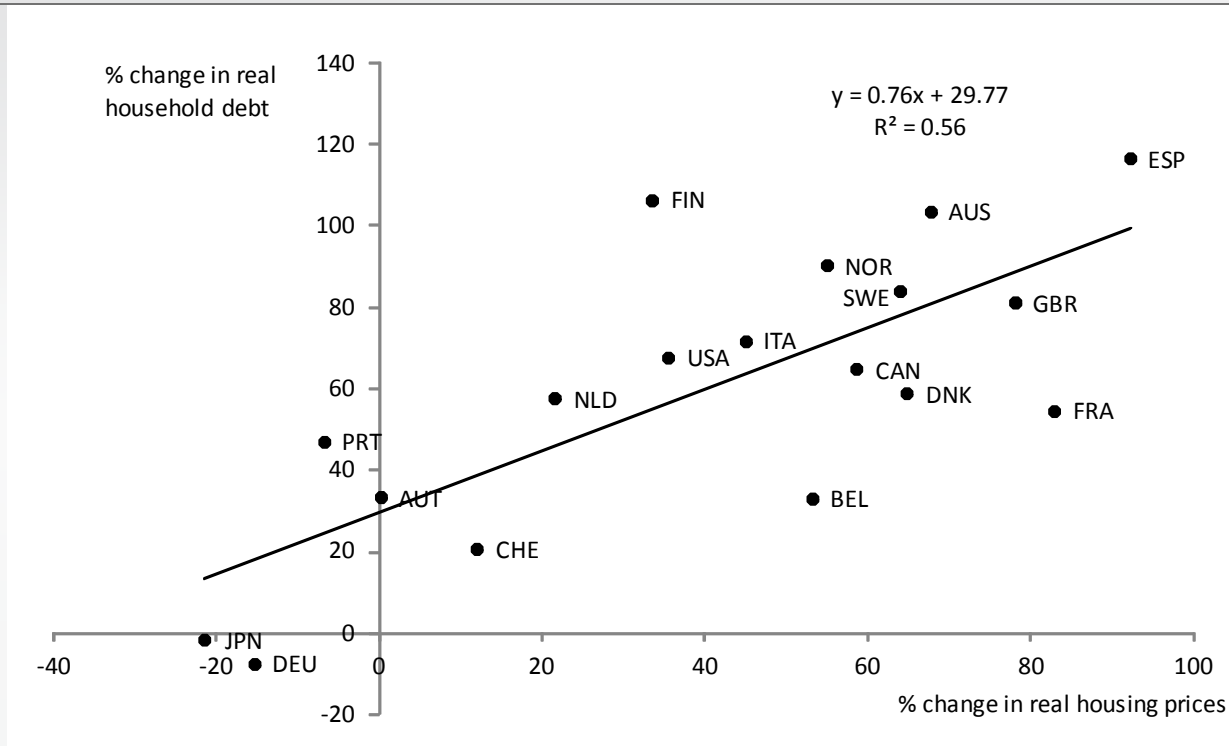
Source: Girouard et al. (2006), OECD Economics Department Working Paper No. 535.

# Drivers of household debt



# Growth in household debt and housing prices

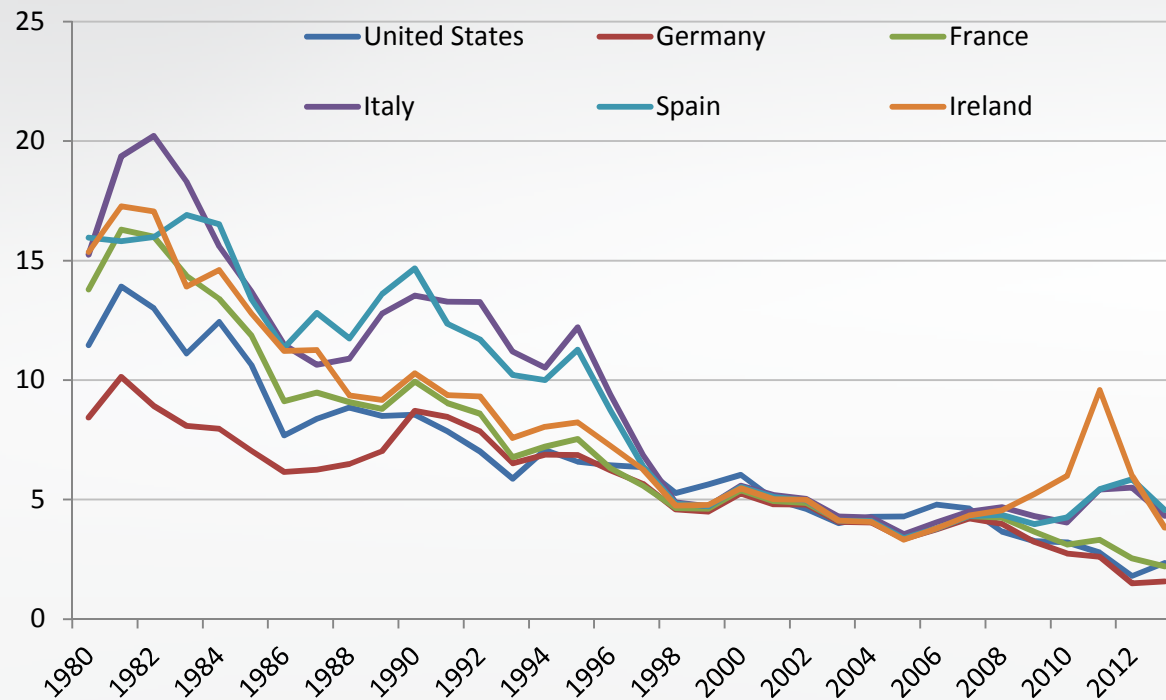
2000-2007



Source: OECD Economic Outlook database and national sources.

# Interest rates have declined spectacularly

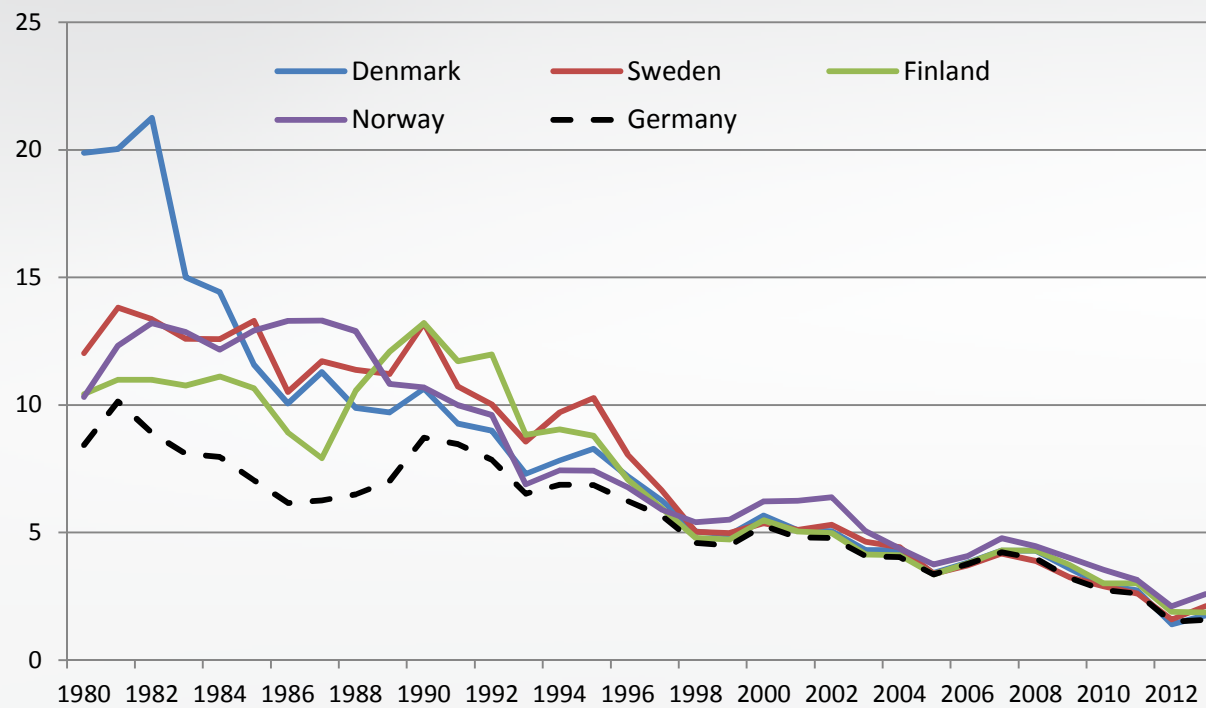
## Nominal long-term interest rates (10-year government bonds)



Source: OECD Economic Outlook database.

## Interest rates have declined spectacularly (cont.)

### Nominal long-term interest rates (10-year government bonds)



Source: OECD Economic Outlook database.

## Mortgage market innovations have flourished during the boom

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- Extension of loan terms
- Increased share of adjustable-rate mortgages
- Higher loan-to-value ratios
- Deferred amortisation loans (interest-only, flexible repayments...)
- Housing equity withdrawal (cash out refinancing, home equity loans)
- Subprime loans (and more generally weaker lending standards)
- Securitisation



## Interest-only loans and repayment strategies

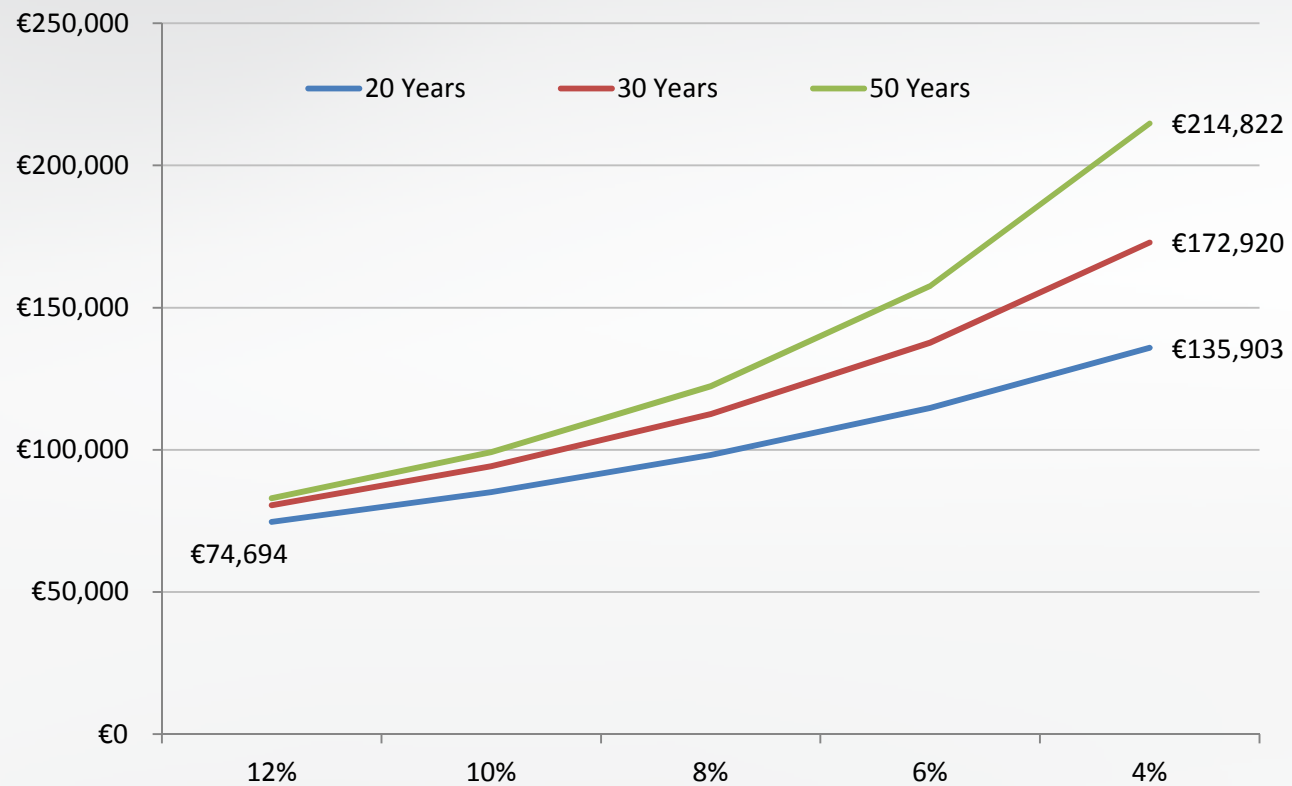
	% new loans that were interest-only	
	1995	2005
<b>Australia</b>	0	30 (all residential) 15 (owner-occupiers)
<b>Denmark</b>	0	31.5
<b>Finland</b>	0	3
<b>Ireland</b>	7.3	8.4 (12.6% in 2006)
<b>Netherlands</b> (of which no repayment vehicle)	69 14	87.6 (2006) 44.3
<b>Spain</b>	0	0 (available since 2006)
<b>UK</b> (of which no repayment vehicle)	62 10	24 20

*\*Netherlands: only borrowers with a single mortgage loan  
Source: Reserve Bank of Australia (2006); Council of Mortgage Lenders Table ML6;  
Department of the Environment, Heritage and Local Government (2008);  
van Dijkhuizen (2005); VROM (2006); country experts*

Source: Lunde et al. in: Hypostat 2007, European Mortgage Federation.

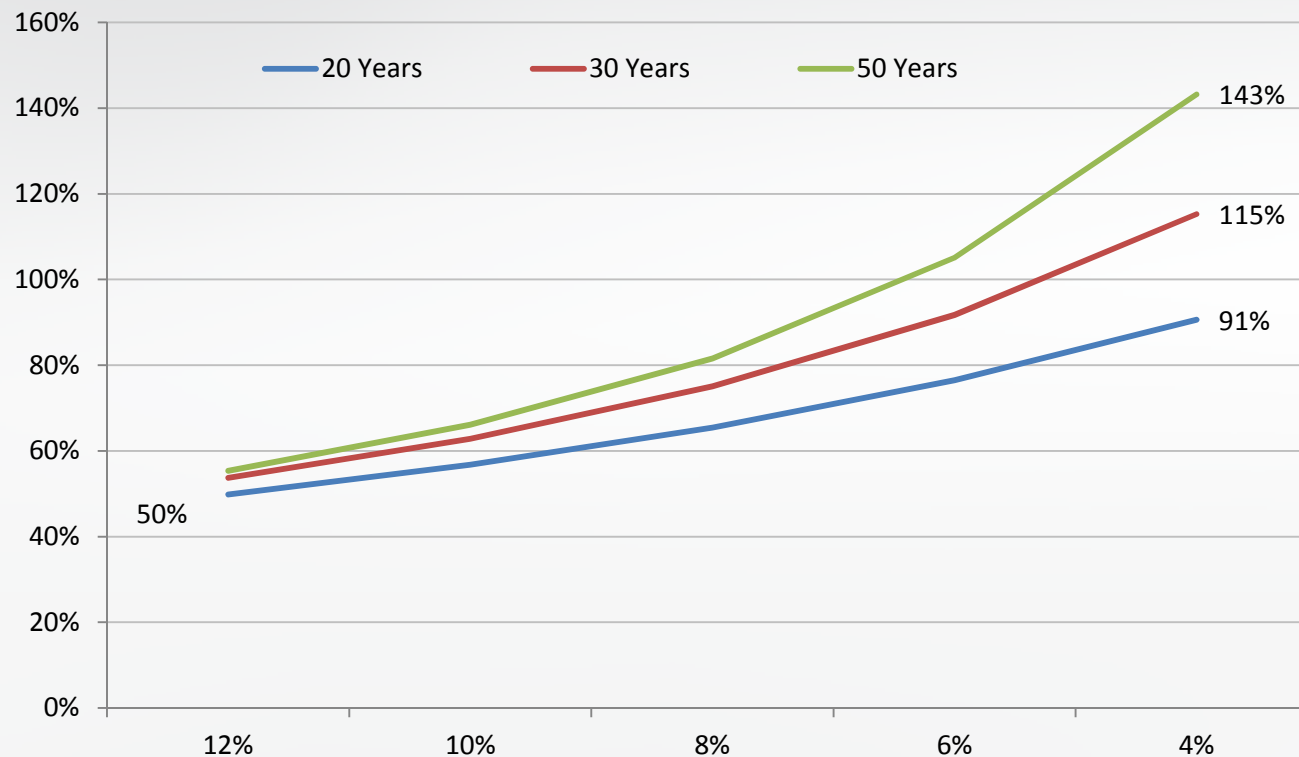
# Low mortgage rates allow larger loans...

Capital corresponding to a €10,000 annuity



## ... but LTV caps limit borrowing capacity

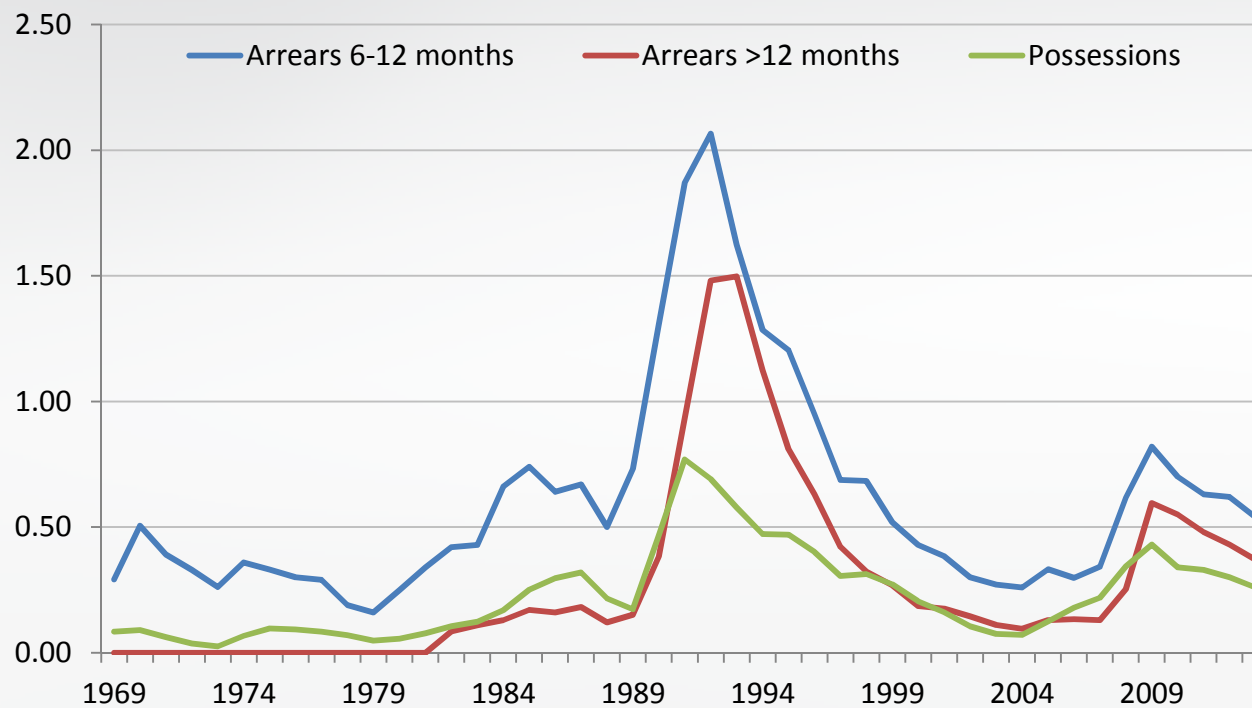
Deposit (% of annual income); Annual income = €30,000; LTV=80%



# Implications for financial stability

# Arrears and possessions in the United Kingdom

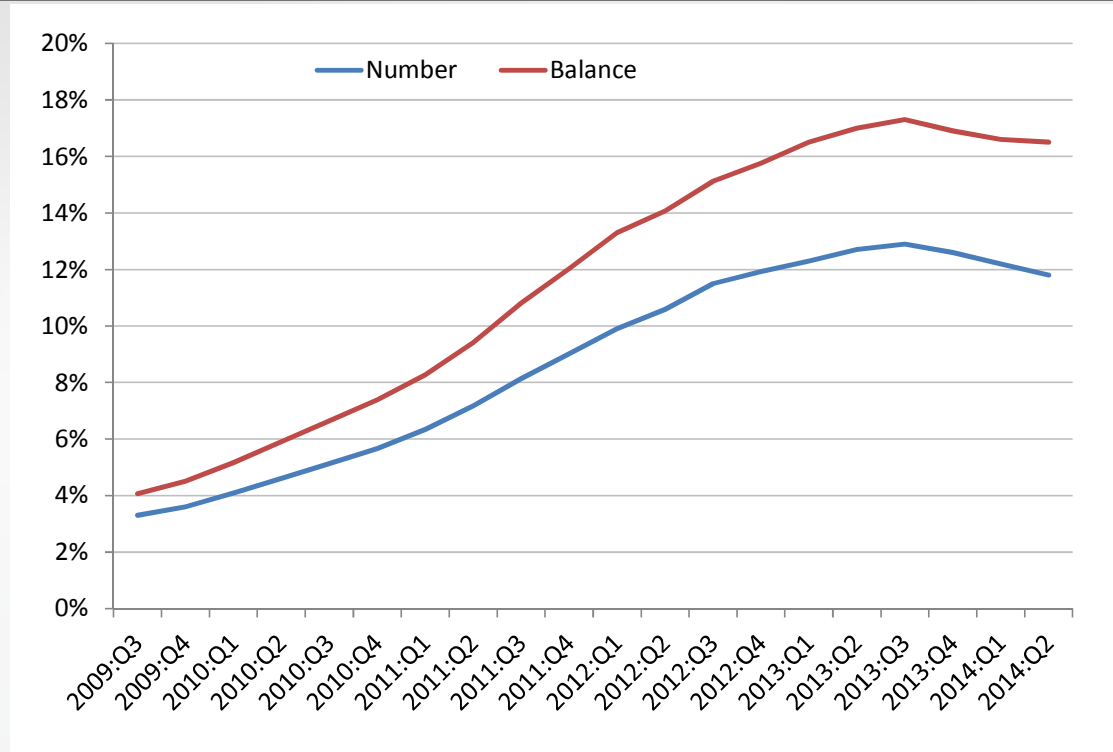
## Per cent of outstanding mortgages



Source: Council of Mortgage Lenders.

# Arrears in Ireland

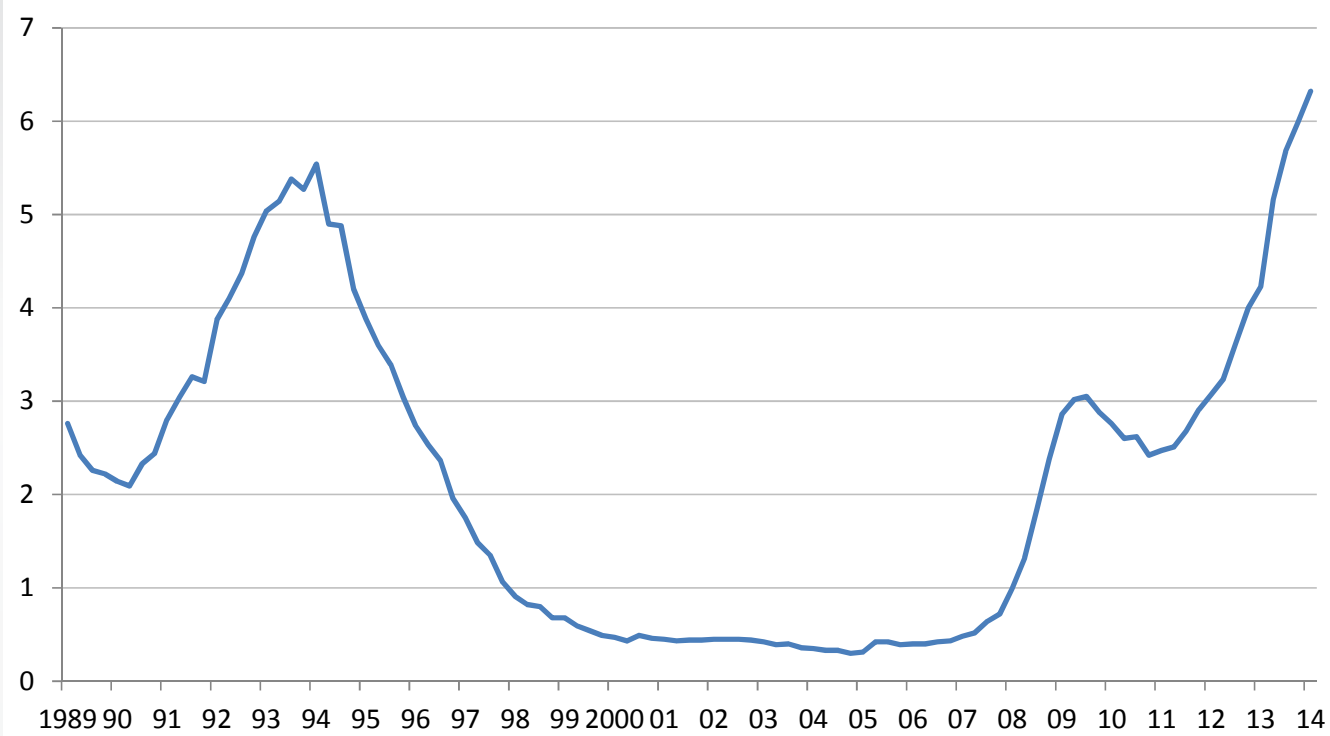
## Percentage of loan accounts in arrears for more than 90 days



Source: Central Bank of Ireland.

## Arrears in Spain

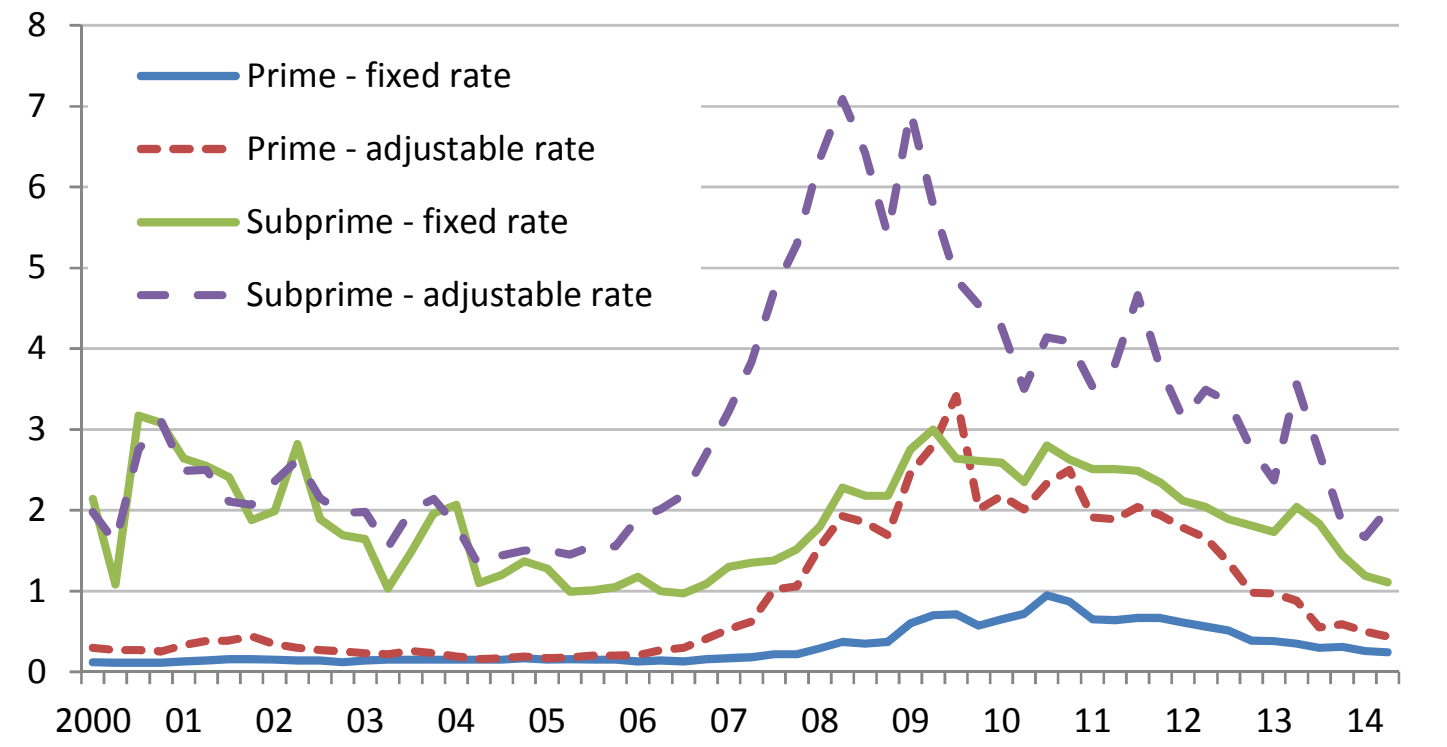
Percentage of non-performing loans for house purchase (>30 days in arrears)



Source: Bank of Spain.

# Foreclosures in the US prime and subprime markets

## Percentage of foreclosures started per quarter

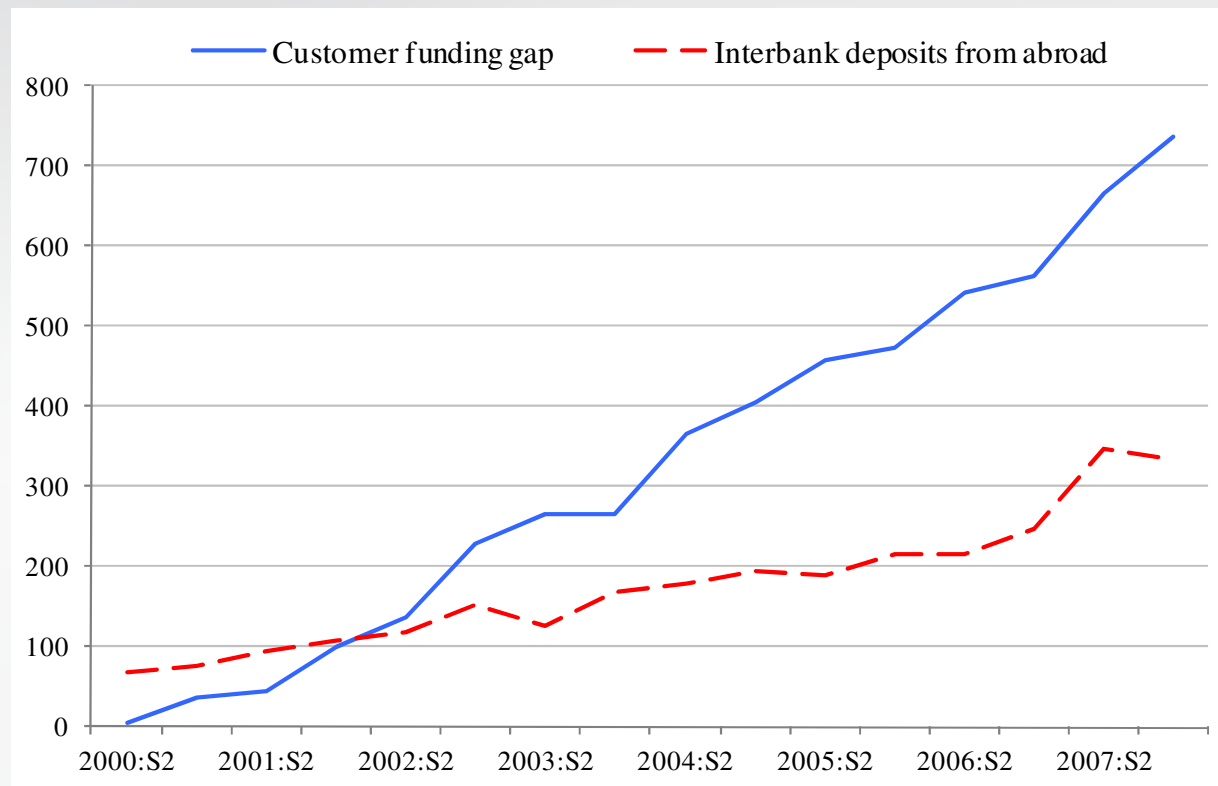


Source: Datastream.



# Funding mortgages before the crisis: the UK example

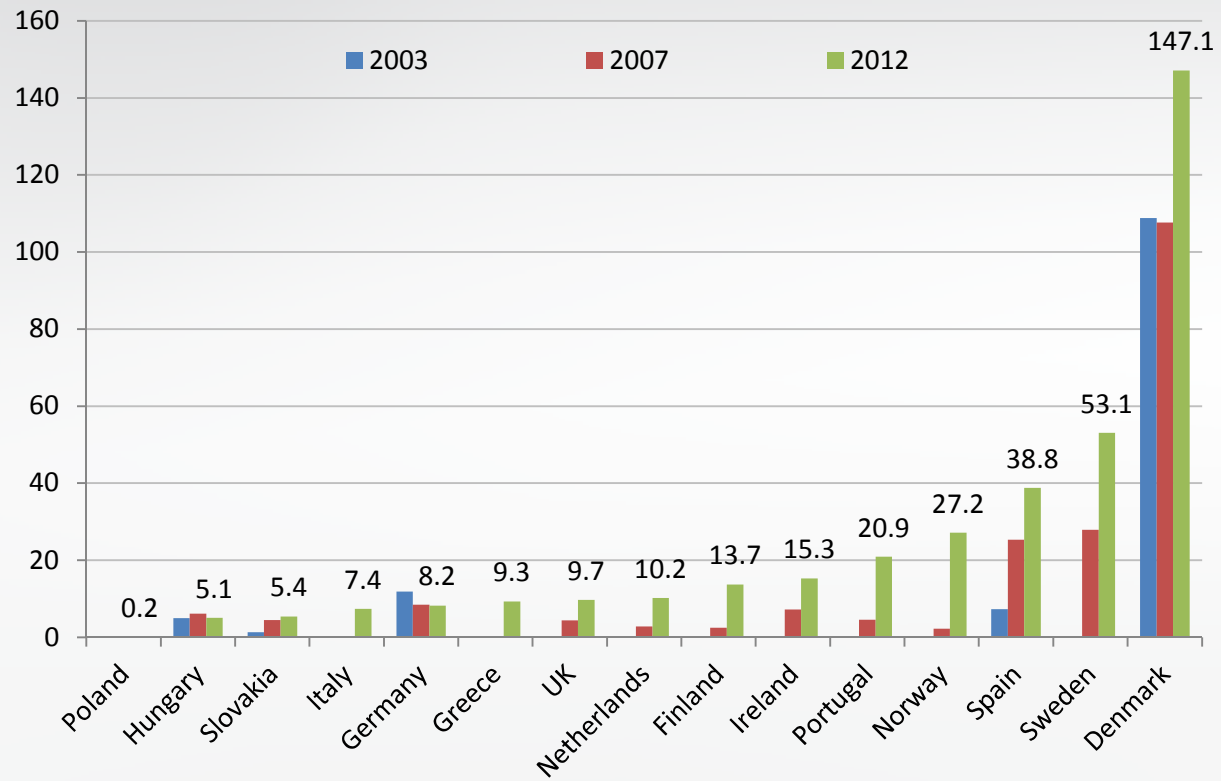
## UK banks funding gap (£ billions)



Source: Bank of England.

# Covered bonds outstanding (backed by mortgages)

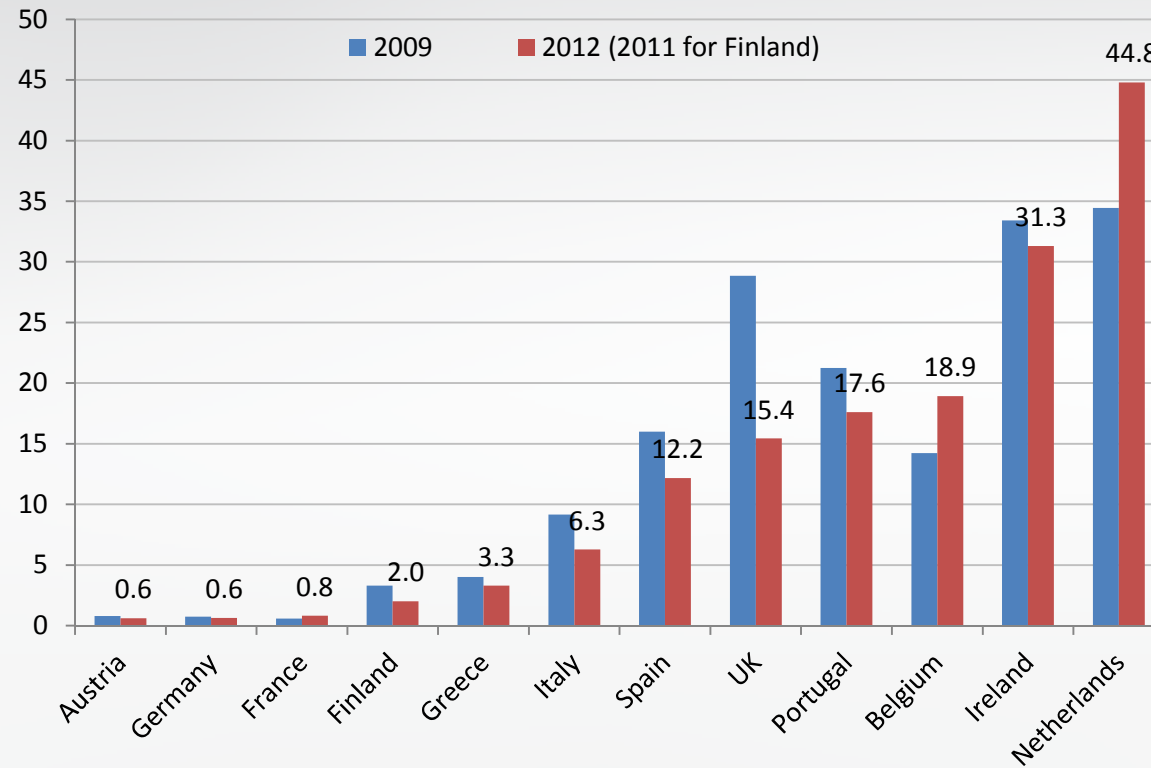
## Per cent of GDP



Source: European Mortgage Federation.

# Residential mortgage-backed securities outstanding

## Per cent of GDP

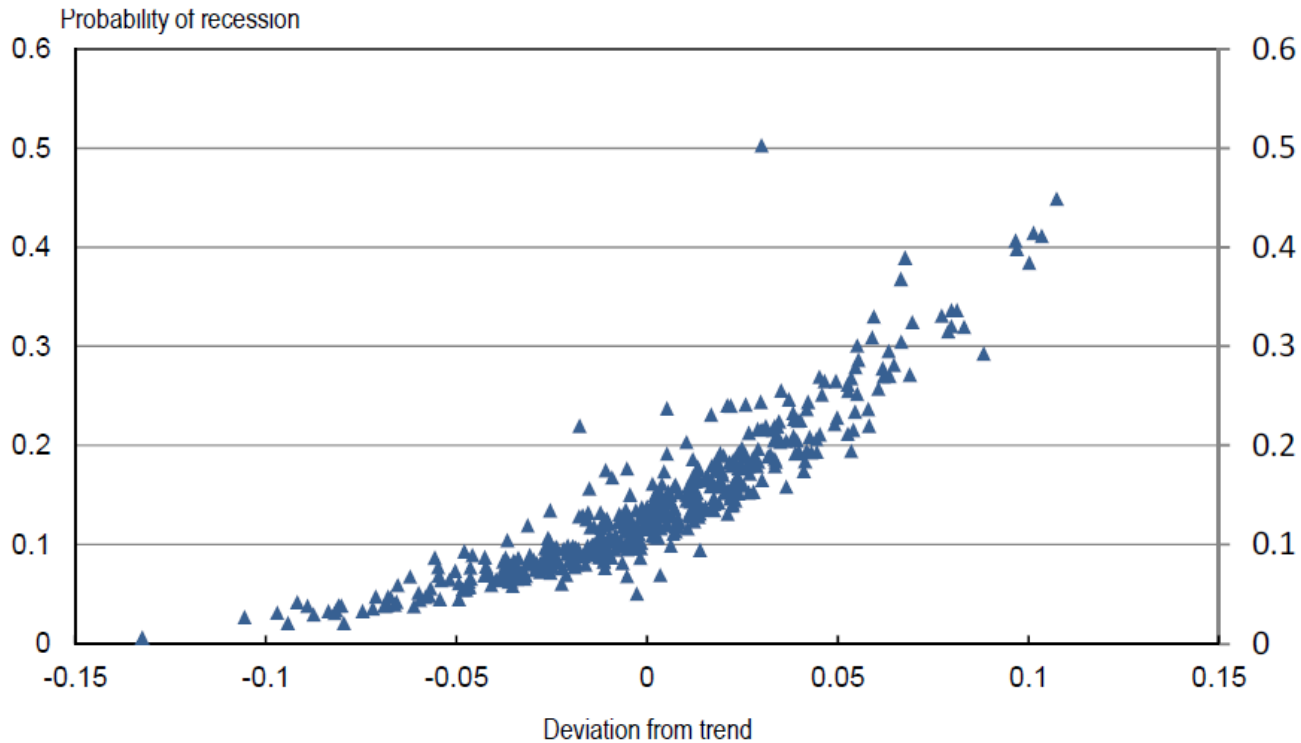


Source: European Mortgage Federation.

# Macroeconomic implications



# Predicted probability of recession when household debt relative to trend rises



Source: Sutherland and Hoeller (2012), OECD Economics Department Working Paper No. 1006.

## Characteristics of the cycle when debt is high and low

Earliest available year to 2010

	Number of recessions	GDP		Previous expansion	
		Average size	Average length	Average size	Average length
<b>Total economy debt</b>					
High	45	-4	4	26	29
Low	25	-2	4	16	20
<b>Household debt</b>					
High	42	-4	4	28	31
Low	32	-2	3	15	18
<b>Government debt</b>					
High	27	-2	3	18	23
Low	48	-4	4	25	27
<b>Financial sector debt</b>					
High	41	-5	4	27	30
Low	33	-2	4	16	19
<b>Non-financial sector debt</b>					
High	46	-4	4	25	28
Low	21	-3	4	19	23

Note: The cycle is the classical business cycle. The size is the cumulative percentage change in the level and the length is the number of quarters of the contraction or expansion phases.

High (low) debt = 50% of business cycles with highest (lowest) de-trended debt-to-GDP ratios.

Source: Sutherland and Hoeller (2012), OECD Economics Department Working Paper No. 1006.

# OECD Surveillance



# Monitoring of debt and housing statistics

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## Debt and asset statistics

- OECD Economic Outlook: Annex Table 58 (G7 countries)
- Increasing number of countries covered in National Accounts
- Lack of micro-data

## Housing prices, price-to-income and price-to-rent ratios

- OECD Economic Outlook: Annex Table 59-60
- Series available for most countries
- Still huge gaps, in particular in terms of comparability; levels rarely available
- Price-to-income and price-to-rent ratios: useful indicators, but need to be interpreted with caution

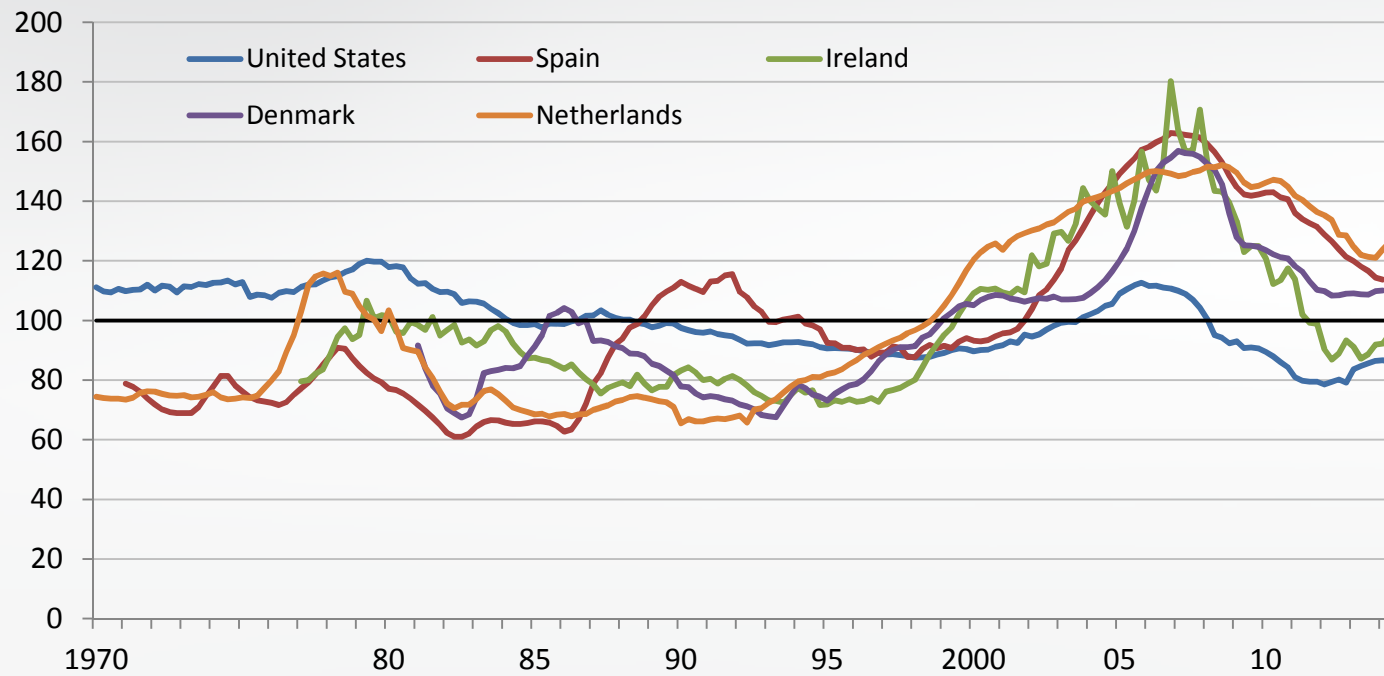
## Other housing statistics

- Residential investment, construction output, building permits...



# Prices are falling relative to income in some countries

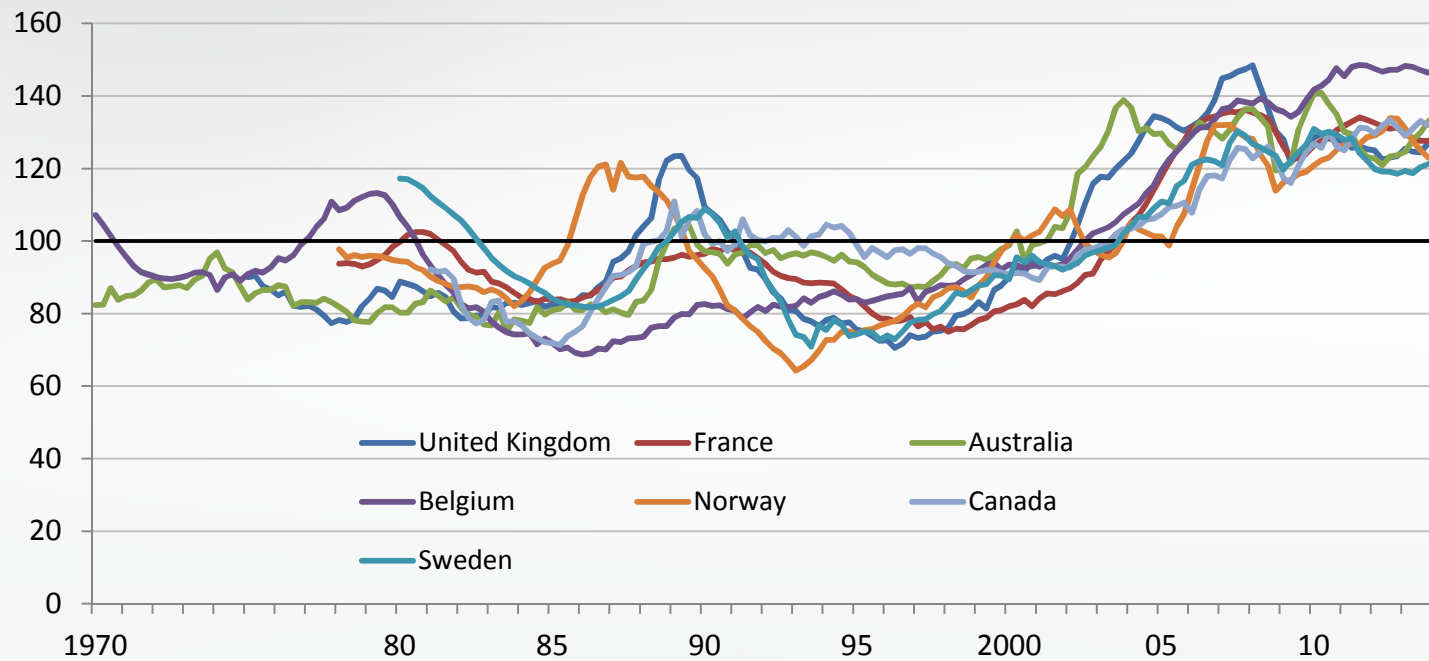
Price-to-income ratios, long-term average = 100



Source: OECD calculations.

# Price-to-income ratios remain high in some countries

Price-to-income ratios, long-term average = 100



Source: OECD and national sources.

## How to avoid credit bubbles and excessive debt?

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### **Sutherland et al. (2012) [OECD Economics Department Working Paper No. 1003]**

- First line of defence: micro-prudential regulation
- Second line of defence: macro-prudential policy
- Third line of defence: monetary policy

### **The propagation of financial shocks depends on housing market features**

- Supply responsiveness
- Taxation
- Balance of tenures...

## First line of defence: micro-prudential

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### **Return to the “basics”**

- Sound underwriting: ability to repay and documentation (income, assets...)
- Appropriate incentives and transparency
- High loan-to-value ratio loans: more capital or mortgage insurance
- Non-amortising loans should be granted with great caution
- Adequate capital buffers for lenders and insurers

### **Areas requiring close monitoring**

- Loans to developers and construction companies
- Loans for commercial property
- Lenders' funding model: maturity (and currency) mismatch

## Second line of defence: macro-prudential

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### **Instruments**

- Caps on loan-to-value ratios, loan-to-income or debt-to-income ratios
- Risk weights on residential mortgages
- Countercyclical buffers
- Dynamic provisioning
- Liquidity requirements
- Measures targeted at foreign-currency lending
- ...

### **Implementation issues**

- Trigger
- Responsibility
- Risk of circumvention

## Third line of defence: monetary policy

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### Identification of a bubble

- About 60% of large real housing price upswings (25% increase over 5 years) end in a bust (Girouard et al. (2006), OECD Economics Department Working Paper No. 475)
- Relevant indicators: credit growth, liquidity, property prices... (e.g. BIS, ECB)
- Other information (e.g. underwriting practices, funding structures...)

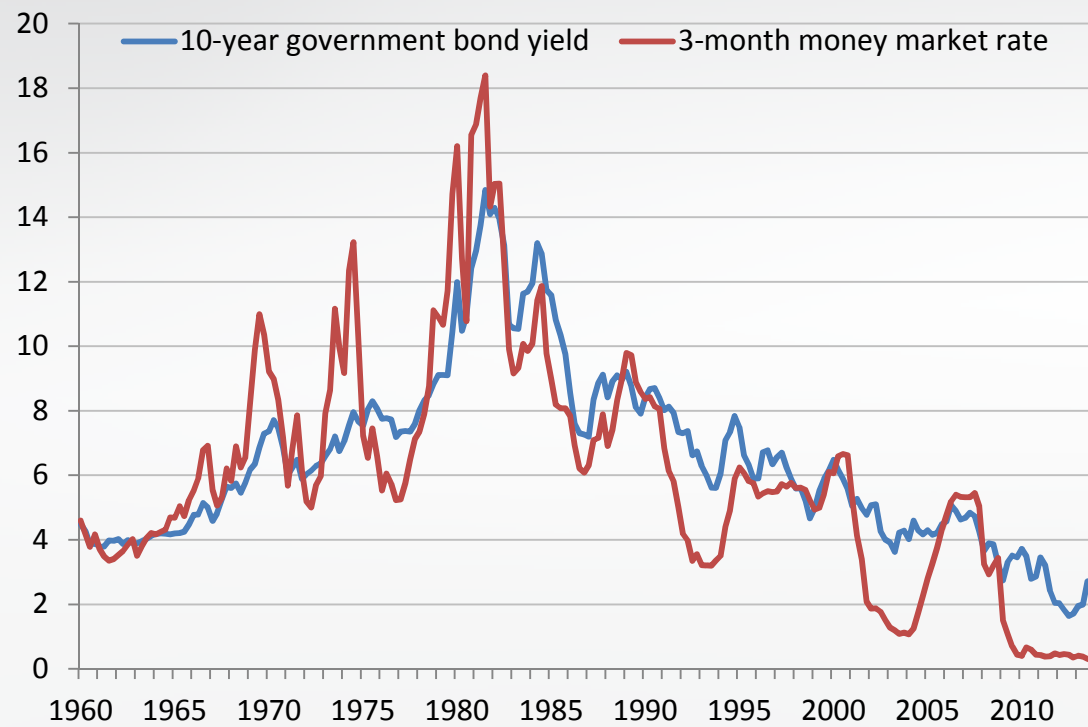
### Effectiveness of interest rate hikes

- Large hikes may be needed, with a big impact on output and inflation
- Ex: Riksbank MPR Feb. 2014: unexpected lowering of the repo rate by one percentage point during a quarter -> Peak impact: household debt ratio  $\approx +1.5\%$ ; Real GDP  $\approx +0.5\%$

### Rationale for action

- Cost of “high debt” crises
- Systemic risk
- Failure of other instruments

## A very steep yield curve may encourage excessive maturity transformation



Source: OECD Economic Outlook database.

## A more holistic approach to housing is needed

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### **Demand side:**

- Tax systems often encourage home-ownership. Mortgage interest deductibility can be costly and tends to be regressive. If supply is rigid, capitalisation of tax advantage in housing prices

### **Supply side:**

- Zoning and planning regulations are often excessively tight
- Infrastructure investment is sometimes insufficient
- Supply of new affordable/social housing is often low (partly because of costs and potential side-effects – segregation, weakening work incentives and mobility)
- Private rental market regulations (rent control, balance of protection of tenant and landlord rights) are hampering the development of the rental market in some countries



# Surveillance in OECD Economic Surveys

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## **Macroeconomic section (Assessment and recommendations)**

- Analysis of risks related to household debt, housing market indicators

## **Special chapters on housing in recent Surveys**

- Canada, Chile, France, Israel, Norway, the Netherlands, New Zealand, Sweden, United Kingdom
- Forthcoming: Belgium, South Africa and Switzerland
- Other: Background paper on housing in Finland; Focus on the social implications of household debt in Korea

## **Typical areas for recommendations**

- Financial stability
- Taxation
- Planning and zoning
- Competition in construction
- Support for the most vulnerable

## Conclusions

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- Household debt may entail risks for households, the financial system and the wider economy. Hence, it needs to be watched closely.
- However a high level of debt is not a sufficient indicator of risk.
- Micro-data on debt and assets need to become more widely available.
- Micro-prudential: monitor the quality of underwriting
- The funding of mortgages: beware of excessive maturity (and currency) mismatch
- Macro-prudential: key to dealing with the credit/housing cycle, but work-in-progress
- Monetary policy: last line of defence
- A more holistic approach to housing markets is needed

**Thank you!**