

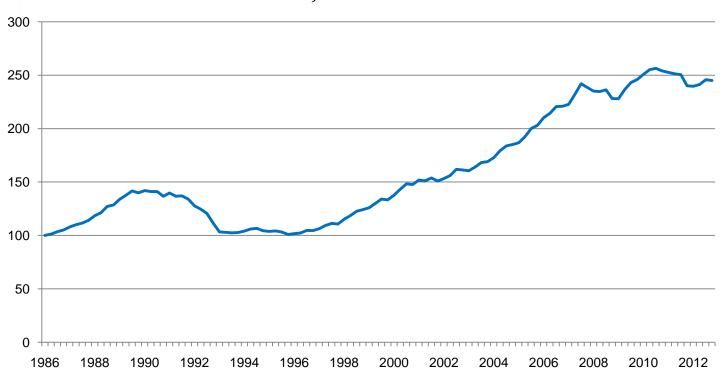
# Housing Prices and Monetary and Fiscal Policy. The Swedish Experience

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### Real Price Index, Owner Occupied One-Family Houses, 1986:1 - 2012:4





## Household debt in percent of disposable income

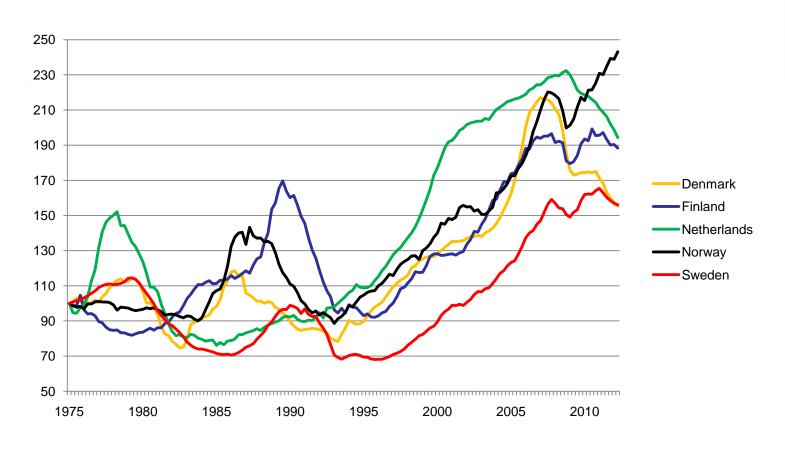






Real house price indexes, 1975:1 - 2012:2

(Source: Dallas Fed)





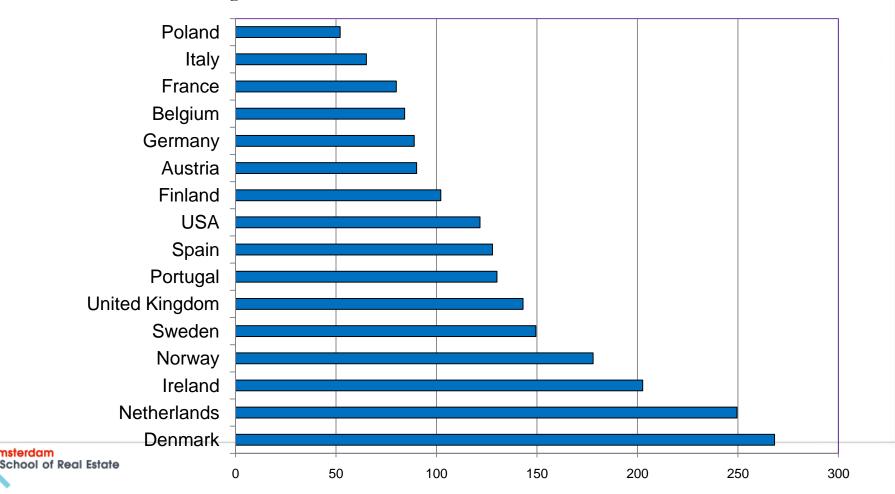


Amsterdam

#### Vereniging van Onroerend Goed Onderzoekers Nederland

## Household debt in percent of disposable income

Source: Sveriges Riksbank





# Understanding house prices

Cost of housing services = Value of housing services.

Cost = user cost times house price.

User cost = real capital costs after tax – expected real capital gains + property taxes + operation and maintenance costs.

Value of housing services depends on the balance between demand and supply. Could in principle be observed in a well-functioning rental market.





## Swedish taxes

All interest payments are deductible marginal tax rate 30% (pre 1991 > 50%).

Property tax: fixed in kronor for most houses

= less than 0.5% of market value.

(pre  $2007 \approx 1\%$  of market value).

Capital gains tax = 22% of gain (but can be deferrred at 0.5% interest rate.

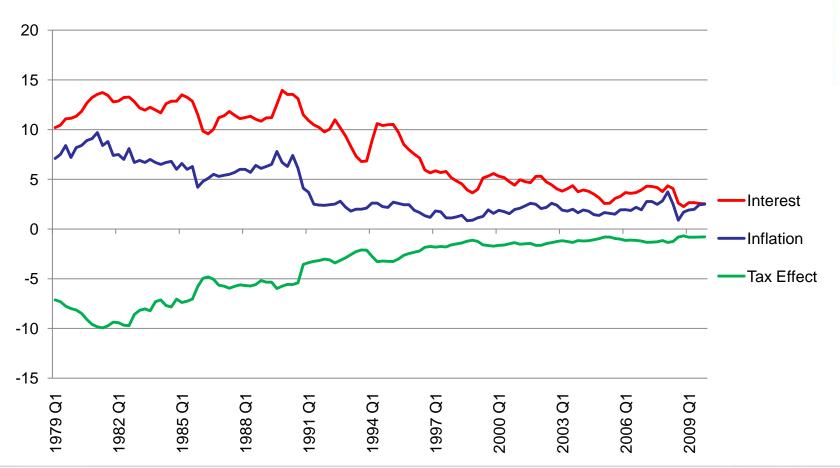
Wealth and bequest taxation abolished in the mid 2000s.

Net effect is a subsidy to owner-occupied housing. The subsidy has increased as a result of tax reforms in the 2000s..





Real interest after tax = Interest - inflation + tax effect





## Capital market developments

1985: major deregulation.

Quantitative lending ceilings abolished lending boom => boom, bust, banking crisis (1991-92)

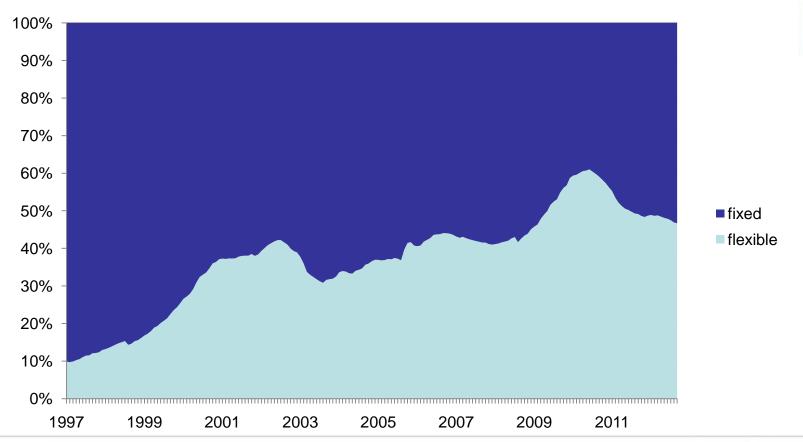
2000s: increased availability of loans flexible interest no amortization high loan-to-value ratios.

2011: 85% LTV cap.



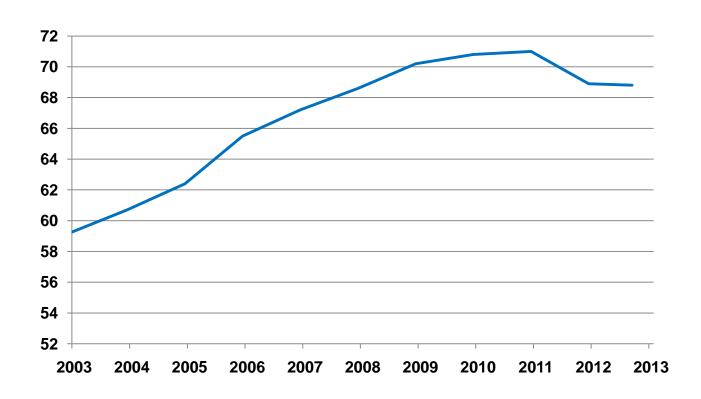


Fraction of new loans with fixed and flexible interest rate, 1997:1 – 2012:9





## Mean loan-to-value ratios, new mortgage loans





## Is there a bubble in Swedish house prices?

In a well functioning market with no bubbles:

Cost of housing = value of housing services (implicit rent)
User cost = rent/price

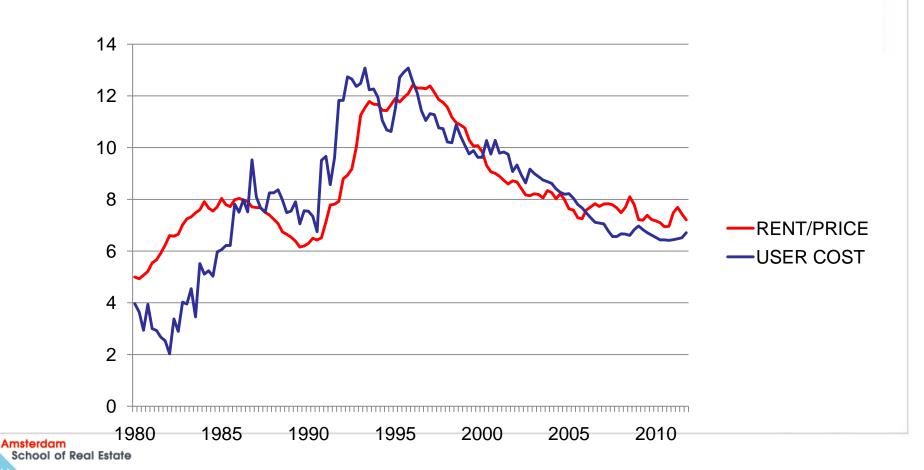
#### A crude measure:

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User cost = five-year after-tax mortgage rate
+ property tax - expected CPI inflation
+ operating and maintenace costs (= 5%).
Rent/price = rent index/house price index
(normalized at 8% in 2003:1)
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## Rent-price ratio and user cost





## Policy and house prices

#### Monetary policy

Interaction house prices – borrowing

Should the repo rate be lowered?

Can the central bank affect real interest rates?

Can the central bank affect availability of funds?

If so, what is the cost in terms of output loss?

#### Fiscal policy

Basic asymmetry (= tax subsidy):

Interest tax deductible, housing income taxed lightly

2007 reduction of property tax may explain a price increase by 5-10 %.

#### Regulation

LTV cap

