FINANCIAL MARKETS AND INSTITUTIONS

MORTGAGE MARKETS

A.Y. 2017/2018

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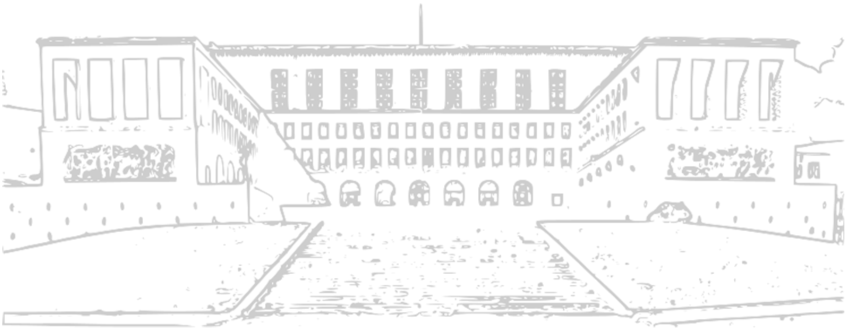


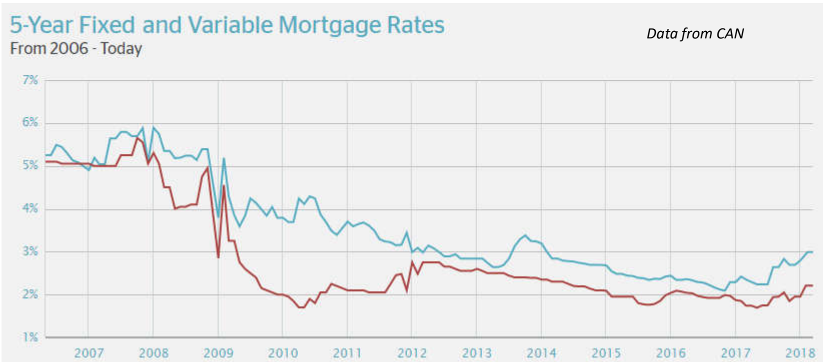
DEAMS
University of Trieste

AGENDA

- Purpose and features of mortgages
- Types of mortgages
- Secondary mortgage markets and their role in the financial crises

Purpose and Features

- **Long-term** loan **secured** by **real estate**
- Both **residential** and **commercial/industrial**
- Repayment involves periodic payments of principal and interest (**amortisation**)
- IR fixed, variable, or a combination



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Purpose and Features

- IR are influenced by:
  - **Features of the operation:**
    - Duration, type of rate and amortization plan (FR, IT, …), purpose
    - Discount points / down payments (f.i. 80/20) and loan-to value
    - Collateral's quality, life/non-life insurance
  - **Borrower's characteristics**:
    - Creditworthiness, available net worth and income
    - Outstanding debt
    - Past behavior and related scores
  - **Lender's characteristics:**
    - Strategy, funding and portfolio
    - Expectations and competition
  - **Markets** (EURIRS or money market – f.i. EURIBOR)

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PURPOSE AND FEATURES

Many variations:

- can be **guaranteed by public agencies** (f.i. veterans, young couples, …)
- IR: adjustable rate – ARM, with caps/floors, also in combination (f.i. fixed installment, variable rate)
- **increasing installments**, such as graduated payment (GPM, designed to allow credit qualification) and growing equity (GEM, designed to allow early repayment) – risky if offered aggressively
- **decreasing optional installments** (extremely risky for lenders)
- **multiple mortgages** on same collateral are possible
- **reverse annuity (RAM)**

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SECONDARY MORTGAGE MARKETS

- Mortgages are illiquid for lenders
- Partially also for borrowers (but: laws and regulation)
- Illiquidity threatens lenders:
  - IR risk (A/L mismatch, but also reinvestment of future flows)
  - default risk / market risk of collateral
  - loan servicing is expensive (administrative costs)

Secondary markets can be useful, but are difficult:

- Initially, **ceding loans** to other investors (but costly and time-consuming)
- Then, funded by (and transferred to) **public repurchase programs** (in bulk, with asymmetric information issues)
- More recently, trough **securitization**

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SECONDARY MORTGAGE MARKETS

Securitisation:

- Issue securities backed by specific assets (mortgages, **MBS**) to fund new acquisitions from originators
- Useful for a number of small-size loans, unstandardised, with different maturities and other economic features, towards borrowers with different credit scores, costly to service, uncertain in default rates
- Process:
  - Creation of a **pool** of mortgages, serving as **collateral**
  - Acquisition is funded through **new securities** whose return and reimbursement depends on cashflows from the original pool
  - **Risks are transferred** to investors
  - Securities could be **tranched** to imply greater or lower **risks of default** (CDOs, collateralised debt obligations) or different **maturities** (CMOs, collateralised mortgage obligations): hence, +/– IR
  - Allows **liquidity** to originator but also **diversification** to investors

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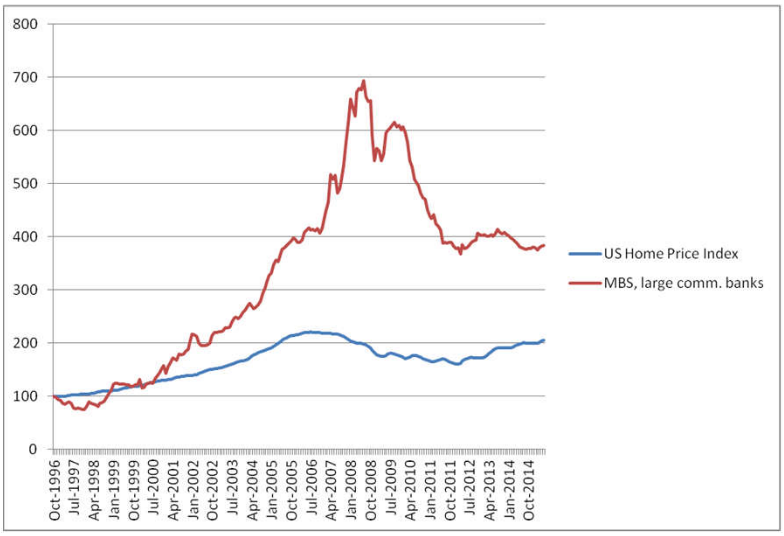
EXAMPLES

Is there a relationship between house prices and secondary mortgage markets?



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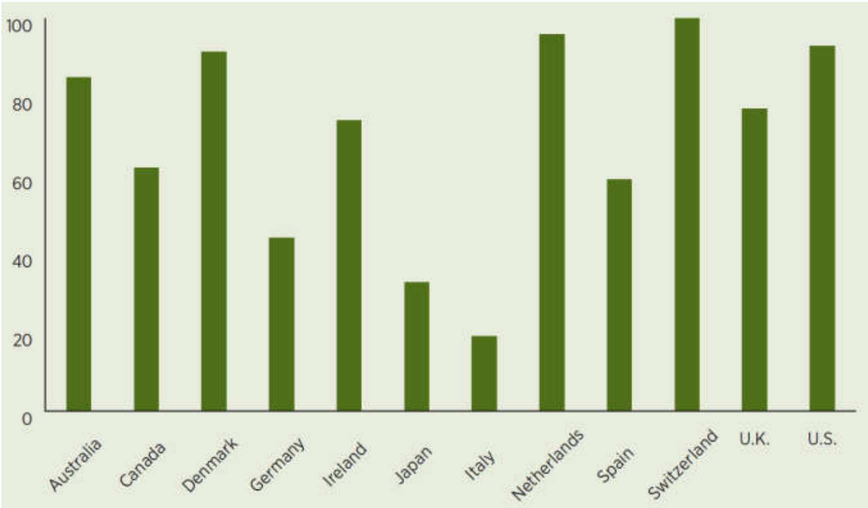
EXAMPLES

Country differences, mortgage debt outstanding / GDP (2008)



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EXAMPLES

US delinquency rates

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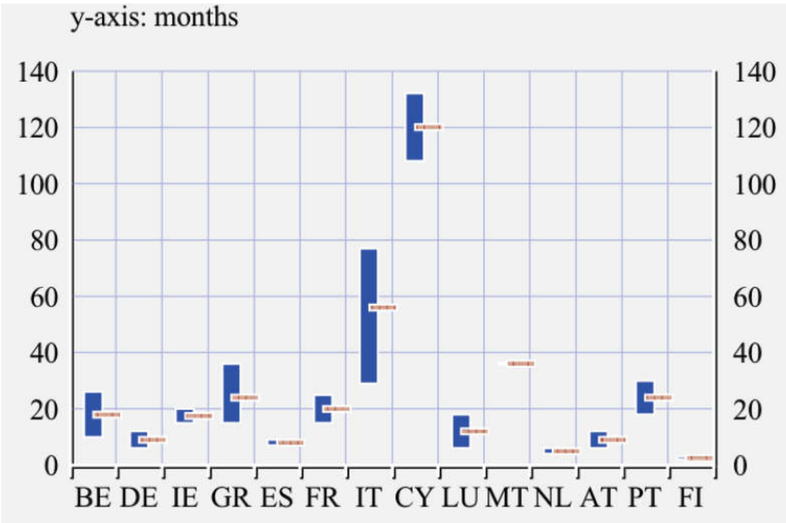
EXAMPLES

Country differences, duration of foreclosures



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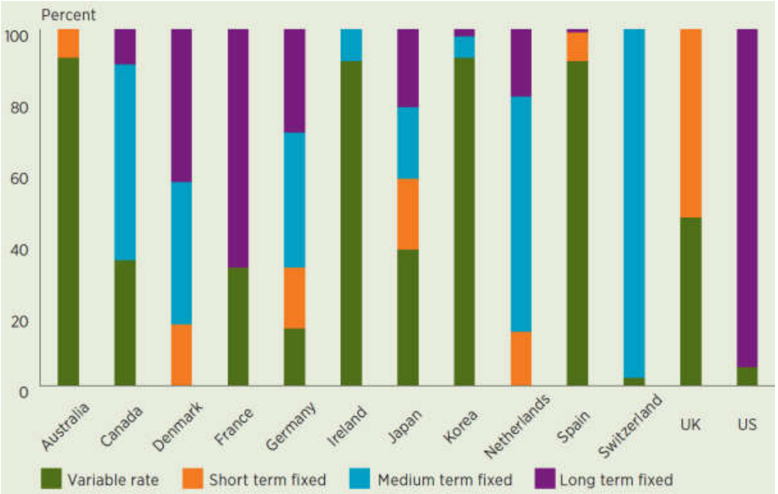
EXAMPLES

Country differences, mortgage debt by interest type



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EXAMPLES

Country differences, mortgage debt by funding source

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