



# Stress Testing the Private Household Sector Using Microdata

Discussion

Tobias Schmidt, Deutsche Bundesbank

*This presentation represents the author's personal opinions and does not necessarily reflect the views of the Deutsche Bundesbank or its staff.*

# Overview and Main Results

- **Research Question:** To what extent do **shocks** to the unemployment rate, interest rate and prices cause **financial stress** among households in the Czech Republic?
- **Contributions**
  - Consider **transitions from employment into unemployment AND** vice versa
  - Distinguish between **spouses' and heads'** labor market status
- **Main Findings**
  - **Unemployment shocks** have the **largest impact** on hhs' financial distress
  - Long-term impact of interest rate shock similar in size to unemployment shock
  - Price shocks to essential expenditure have only a small impact
  - **Heterogeneity matters !**

## General Comments

- Paper shows **value added of micro-data** especially in the part where scenarios are taken from financial stability reports (see also Albacete et al., 2014)
- **Established methodology**
- Strategies of **how to deal with stress** not considered (some because of data limitations)
- Can the **probabilities related to shock** sizes/scenarios be used to construct something like an overall **expected value of distress**?

## Specific Comments – Employment/Unemployment Shock

- How much does the **intra-household heterogeneity actually contribute**?  
What happens to the stress indicators if you shut down the full transition between employment and unemployment and the intra-household heterogeneity? Do your results get closer to results for Austria and Sweden?
- You could analyse **single person households** only. The impact could be more severe, because there is not partner to compensate the job loss

## Specific Comments – Employment/Unemployment Shock

- Social Security System: **reduced income** as the **unemployment** spell last **longer** (page 10) -> Can this be considered in your analysis?
- **Unemployment and price level changes** seem to be **linked** (income -> demand -> prices) in joint scenario (only). Why not in the unemployment scenario?
- An extension could be to consider a more **general shock to income** rather than an unemployment shock hitting a part of the population.

## Specific Comments – Interest Rate Shocks

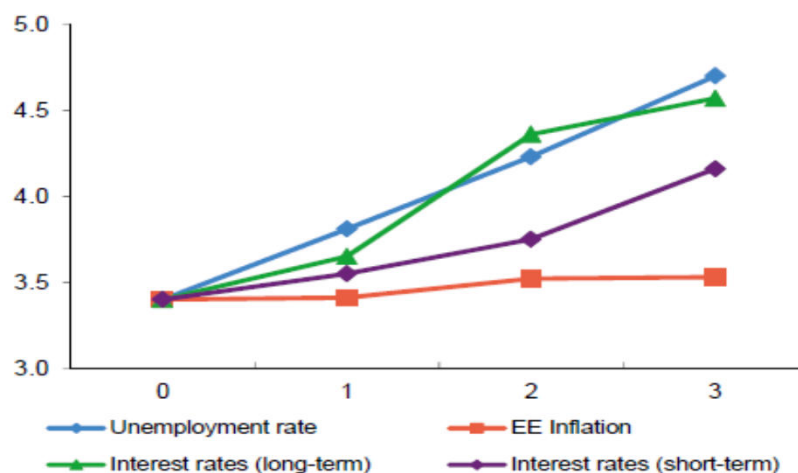
- Installments for loans = amortization + interest rate?
- Do you assume that the **amortization/repayment** is **fixed**?
- **Households** (potentially) in distress may **adjust amortization** to compensate for an increase of the interest rate.

## Specific Comments – Result of Stress Tests

- **Add table** showing the structure and components of **Financial Stress (FS)** by **income groups**. Many arguments focus on impact of low income households.
- Does the **moderate (absolute) increase** in the share of distressed households imply that most **households consider** the risks involved in going into debt?

*Figure 3: Percentage of Distressed Households in Response to Macroeconomic Shocks*

(% on y-axis; standard deviations on x-axis)



- Many studies seem to find, that stress in the household sector is not a big problem for financial stability. Was this **different in the US before the crisis (SCF 2007)**?

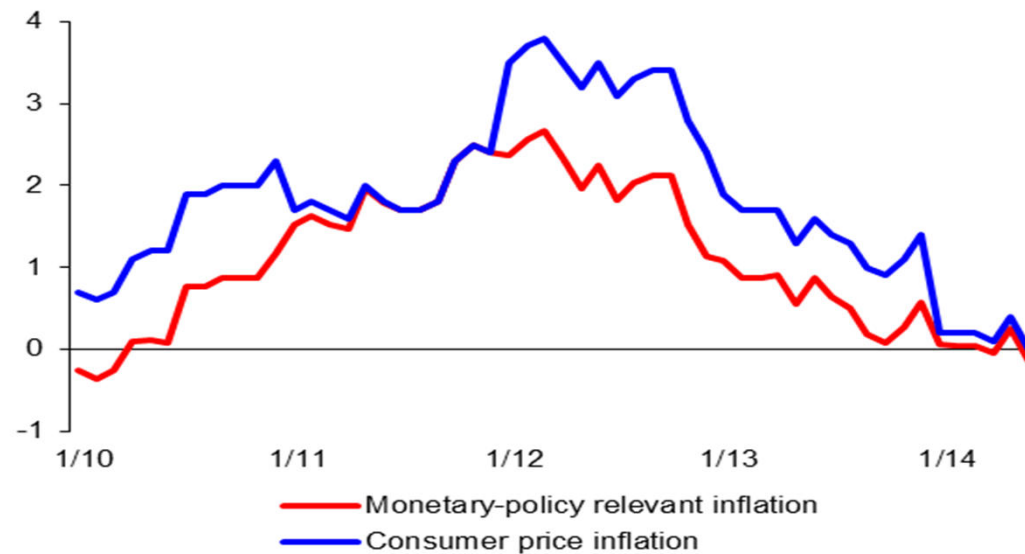
## Ideas for Future Research I

- Add **dynamic considerations** and portfolio adjustments as a reaction to stress
- **Clustering of risks/stress** by institution, region, ...?
- Stress testing **firms vs.** stress testing **households**? Network effects, spillover, etc.



## Ideas for Future Research II

Chart III.1.2 Inflation - Annual inflation was at very low levels in 2014 Q2 (y-on-y in %)



Source: CNB - Inflation Report III/2014 – tables and charts in the text

=> Should we start to investigate **deflation / low inflation scenarios**?

**Thank you for your attention !**

Tobias.Schmidt@bundesbank.de