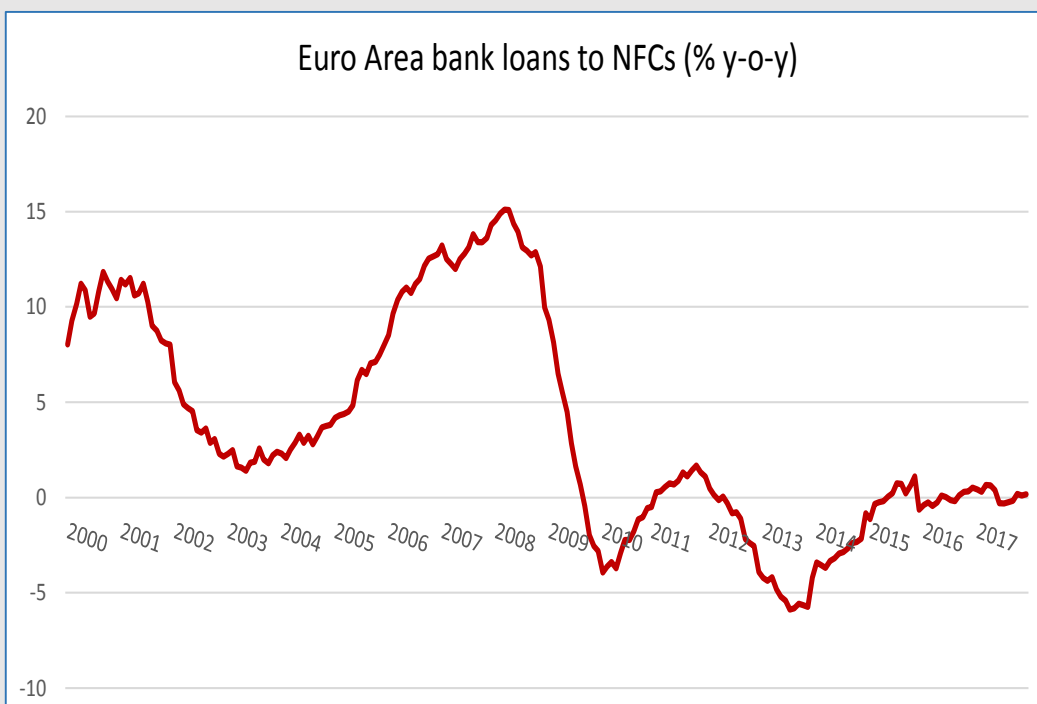
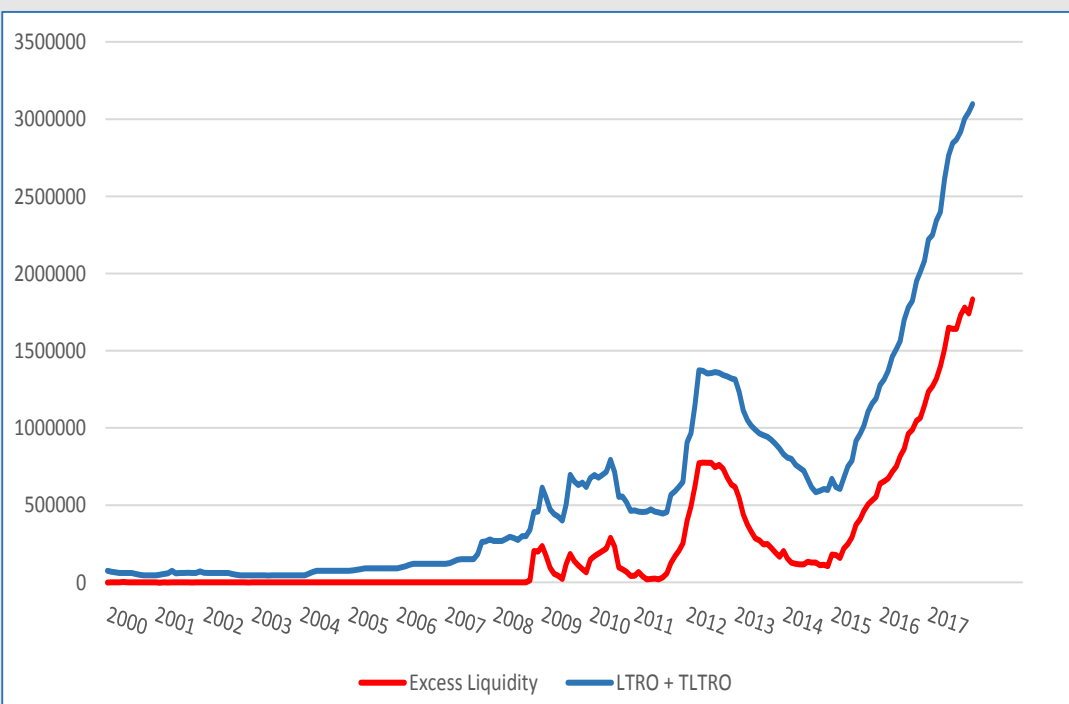


# Financial Crisis Monetary Base Expansion and Risk

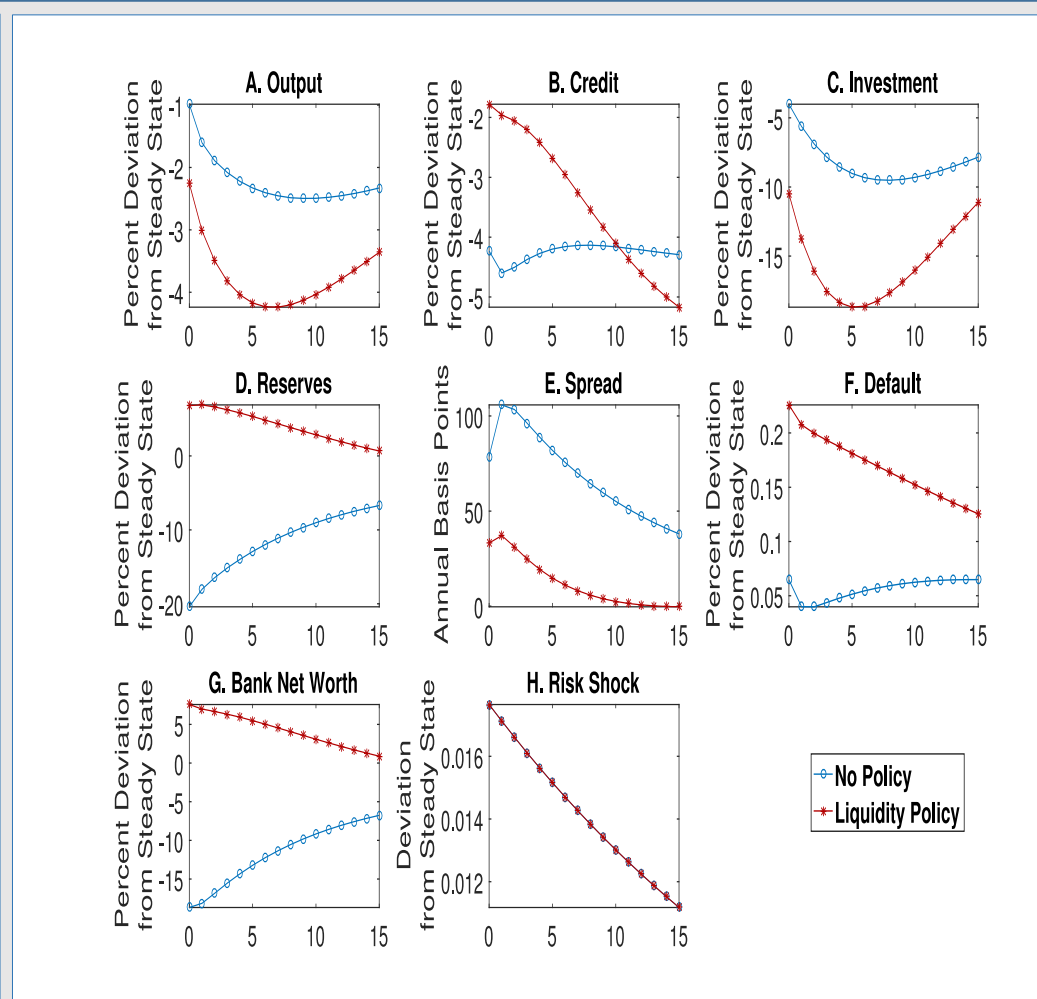
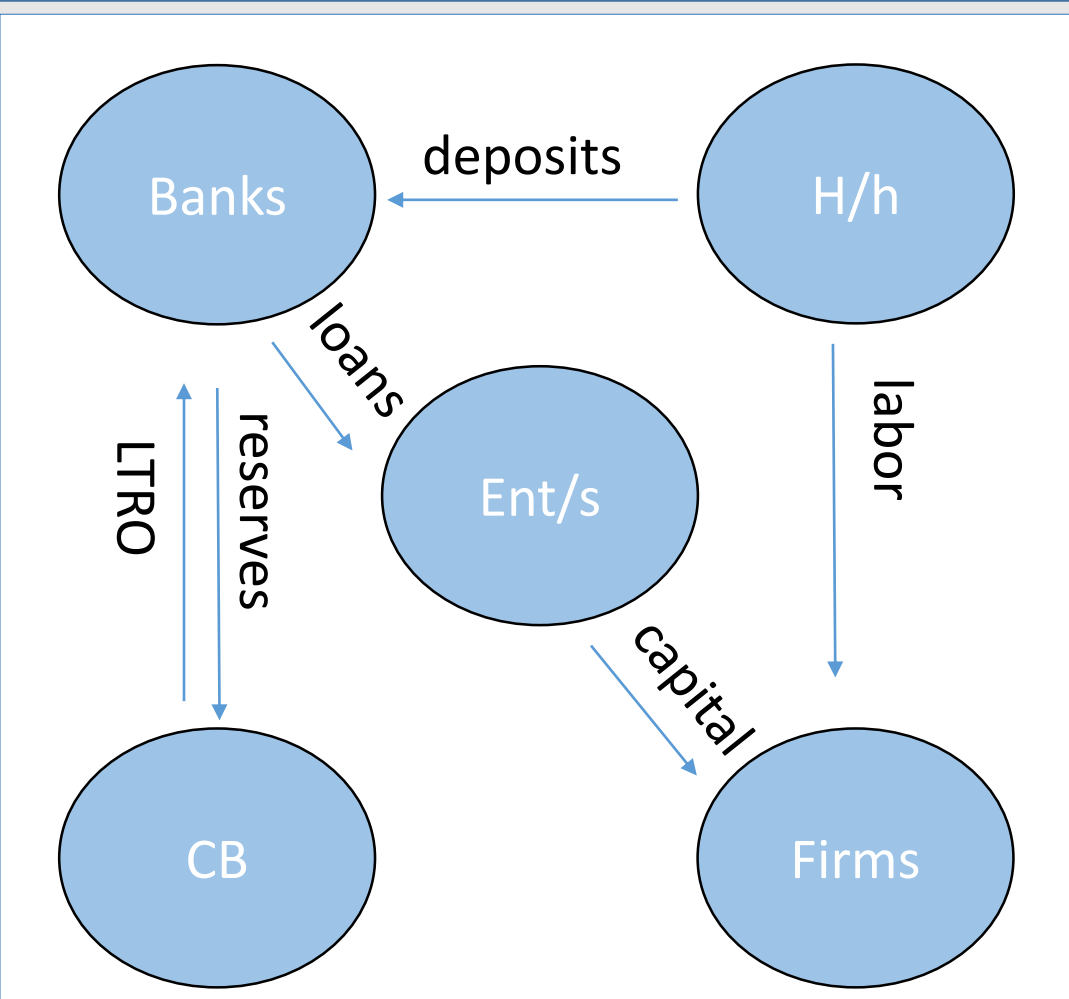
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- Do Central Banks stimulate lending by liquidity injections to the banks (LTRO, TLTRO)?
- Yes, but risk-shifting channel is at work with negative consequences for the macroeconomy
- Why banks accumulate reserves?
- They do when it is risky to lend



DSGE model with financial frictions on the supply and the demand side of credit. Estimated for the Euro Area.



## Key Results:

$$L_t = \phi_t N_t^B + \underbrace{\frac{1}{1 - p(\bar{\psi}_t)} (\omega M_t)}_{\text{risk-shifting}}$$

$$\mathbb{E}_t R_{t,t+1} = \underbrace{\frac{\lambda_t}{(1 + \lambda_t)} \frac{\theta}{\mathbb{E}_t \Lambda_{t,t+1} \Omega_{t+1}}}_{\text{liquidity component}} + \underbrace{\mathbb{E}_t R_{t+1} \frac{1}{1 - p(\psi_t)}}_{\text{risk component}}$$

## Risk Shifting Channel

1. Firms' default likelihood ▲
2. Lending spread ▲
3. LTRO ▲
4. Lending spread ▼, Lending ▲
5. Firms net worth ▼
6. Default likelihood ▲
7. Investment, Output ▼

## Policy Implications

- Liquidity injections increase risk-taking incentives by banks
- Focus on measures that improve the net worth of the production side