

Sign and Zero Restrictions: Optimism Shock on the Australian Business Cycle

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Kitty!

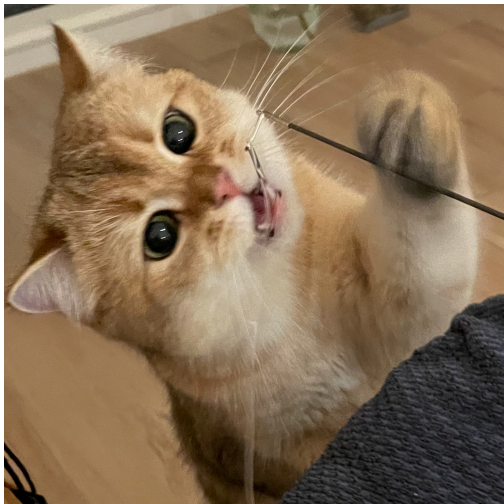
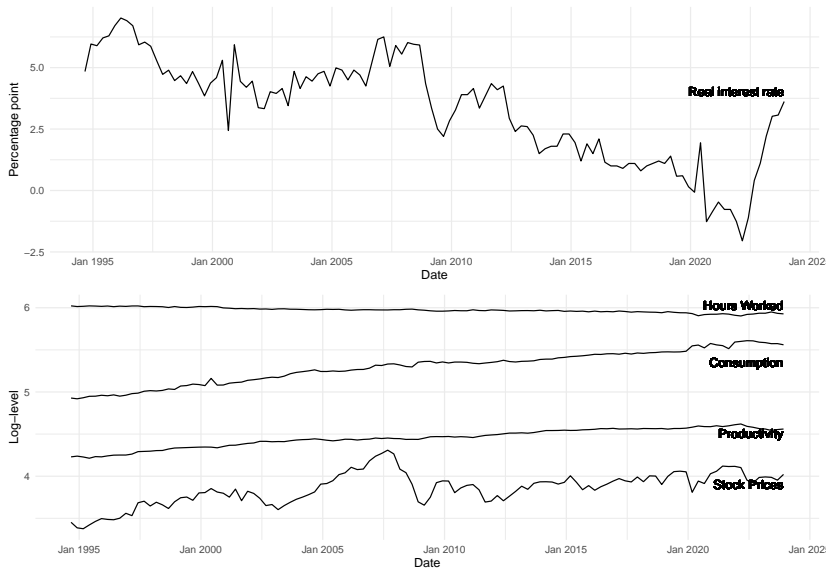


Figure 1: Hunting!

Data



Optimism shock

- ▶ **Zero** impact on productivity
- ▶ **Positively** affects stock prices

$$\begin{bmatrix} u_t^{\text{productivity}} \\ u_t^{\text{stock prices}} \\ u_t^{\text{consumption}} \\ u_t^{\text{real interest rate}} \\ u_t^{\text{hours worked}} \end{bmatrix} = \begin{bmatrix} 0 & * & * & * & * \\ + & * & * & * & * \\ * & * & * & * & * \\ * & * & * & * & * \\ * & * & * & * & * \end{bmatrix} \begin{bmatrix} \varepsilon_t^{\text{optimism}} \\ \varepsilon_t^2 \\ \varepsilon_t^3 \\ \varepsilon_t^4 \\ \varepsilon_t^5 \end{bmatrix}$$

u_t reduced-form errors, ε_t structural shocks, $*$ = no restrictions

Extension

- ▶ Narrative restriction by Antolín-Díaz and Rubio-Ramírez (2018)
- ▶ Restriction on sign of structural shocks
- ▶ Covid-19 is a **negative** optimism shock

$$\varepsilon_{2020Q1}^{\text{optimism}} < 0$$

Result

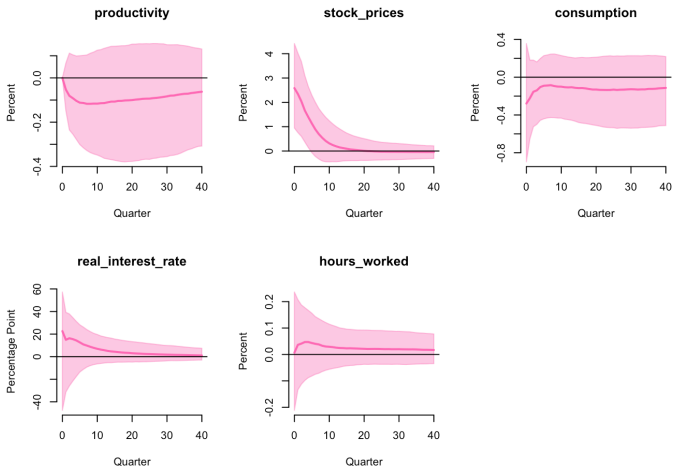


Figure 2: Australian optimism shock impulse responses (68% interval)

Best thing!

- ▶ Stealing other people's code



Figure 3: Swamp puppy!

References

Antolín-Díaz, Juan, and Juan F Rubio-Ramírez. 2018. “Narrative Sign Restrictions for SVARs.” *American Economic Review* 108 (10): 2802–29.