

Econometric Game 2016

Case B

How does the business cycle influence (socioeconomic inequity in) health care use?

Background

There is a large literature that documents that worsening economic conditions are associated with reduced mortality and improved health (Ruhm, 2015; Gerdtham and Ruhm, 2006; Ruhm 2005; Ruhm 2000). However, less is known about whether individuals adjust their health care behavior when the economy weakens. In addition, different countries may adjust their public health care budget differently in response to changes in the business cycle, and this may impact the socioeconomic inequity in health care use.

Research Question

The goal of this case is twofold:

1. Investigate whether European elderly adjust their health care behavior in response to business cycle conditions
2. Investigate whether bad economic times increase or decrease socioeconomic inequity in health care use

Data

The data available for this study contain information on 4 waves of the SHARE data used in Case A (Waves 1, 2, 4 and 5). Each individual participates in a maximum number of 4 waves from 2004 to 2013, i.e., not all the surveys in the same wave are done in the same year. This provides some variation in the macroeconomic conditions across individuals in the same country in the same wave. In addition, the data includes information on GDP, unemployment rate and health care expenditures from the OECD. The variables are described in detail in the document "Data Case B".

Modelling issues

The following modelling issues are relevant to this case, in addition to the ones described for Case A:

- How should individual and aggregate macroeconomic variables be combined?
- What is the appropriate way to calculate and interpret the marginal effects (see Karaka-Mandic et al, 2012)
- Should one estimate different models to take into account the longitudinal nature of the data?

Note: Each team has to prepare a presentation. This presentation has to be **maximum 6 minutes**, so please do not explain all the details of your model, but give a short overview of what you have done. Please try to make the presentation understandable for people with less knowledge about the subject.

References

Gerdtham U and Ruhm CJ (2006) Deaths Rise in Good Economic Times: Evidence from the OECD. *Economics and Human Biology* 43(3): 298-316

Karaka-Mandic P, Norton EC and Dowd B (2012) Interaction Terms in Nonlinear Models. *Health Services Research* 47:1, Part I

Ruhm CJ (2000) Are recessions good for your health? *Quarterly Journal of Health Economics* 115(2): 617-650

Ruhm CJ (2005) Healthy living in hard times. *Journal of Health Economics*, 24(2): 341-363

Ruhm CJ (2015) Health Effects of Economic Crises. NBER Working Paper No. 21604