

# Estimation of Firm Level Markups

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## Syllabus

Economic theory tells us that perfect competition in the product markets leads to zero profits in the long run. On the one hand, firms enjoying market power on the product market will be price makers, a behavior known to deter the consumer surplus and overall welfare in the short run. On the other hand, firm profits – an expression of market power at the firm level – is the key to sustained investments, innovation and productivity growth in the long run. Therefore, an important issue for policy makers is to be able to measure market power by firms.

The difficulty is that to measure market power is not a simple task. Contrary to accounting markups which is simply the profitability of the company (profit to value added ratio), economic markups can be neither observed directly nor computed using simple accounting data. The reason for this is that economic markups are defined as the price to marginal cost ratio, two variables that are not observable in firm level census. In order to circumvent this difficulty, one needs to develop a reduced form of a more structural model departing from the profit maximization / cost minimization behavior of the company.

This course aims to estimate economic markups at the firm level. To do so, it will review few methods (Hall 1988, Roeger 1995, Klette 1999, DeLoecker & Warzynski 2012). Because it is based on data handling, a dataset will be provided to student with all relevant variables. Particular emphasis will be put between reading equations in scientific papers and implementing them on Stata, the most diffused statistical and econometrics software among economists. Students will be asked to measure estimated markups and provide policy relevant comments.

## References

De Loecker, J. and Warzynski, F., 2012. Markups and Firm-Level Export Status. *American Economic Review* 102, 2437-2471.

Hall, Robert E., 1986, Market Structure and Macroeconomic Fluctuations, *Brookings Papers on Economic Activity*, Vol. 17, No. 2., 285-338.

Hall, Robert E., The Relation between Price and Marginal Cost in U.S. Industry, *The Journal of Political Economy*, Vol. 96, No. 5. (Oct., 1988), pp. 921-947.

Klette, Tor Jakob, 1999. "Market Power, Scale Economies and Productivity: Estimates from a Panel of Establishment Data," *Journal of Industrial Economics*, Wiley Blackwell, vol. 47(4), pages 451-76, December.

Matsuura, Toshiyuki, 2010, *Introduction to Data analysis - from basic economic analysis to panel data analysis*, TokyoTosho Co Ltd, Tokyo, Japan (in Japanese).

Roeger, Werner, Can Imperfect Competition Explain the Difference between Primal and Dual Productivity Measures? Estimates for U.S. Manufacturing, *The Journal of Political Economy*, Vol. 103, No. 2. (Apr., 1995), pp. 316-330.

Wooldridge, Christopher, 2012, *Introductory Econometrics: A Modern Approach*, CENGAGE Learning Custom Publishing, 5<sup>th</sup> edition.

## **Prerequisite**

Proficient in English

Basic knowledge of microeconomics

Good knowledge of statistics and econometrics

Good knowledge of Stata

## **Practical information**

This course is planned to last four hours and students are expected to bring their own laptop with the Stata software already installed.