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Stable markups in the Netherlands

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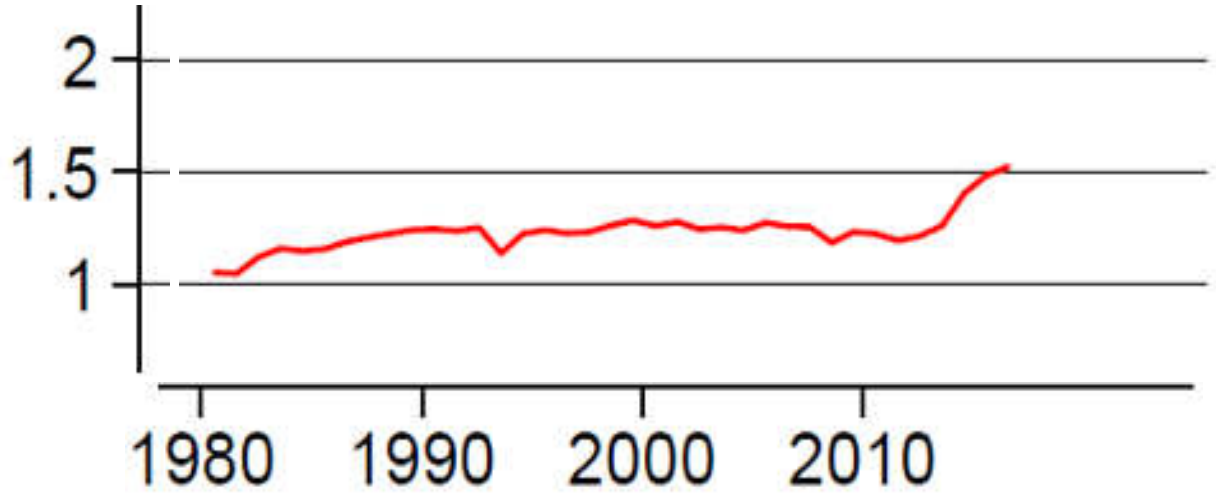
Outline

1. Introduction
2. Methodology
3. Results
4. Concluding remarks

1. Introduction

- Starting with De Loecker & Eeckhout (2017), many studies find a strong increase in the markup in US & Europe
- De Loecker & Eeckhout (2018), NL



Introduction

- Following the production function approach
  - Start with first-order condition of free input
  - Markup = output elasticity / cost share of free input

- **Main findings**
  1. Average weighted markup is stable in 2006-2016
  2. Results are robust to alternative estimation of output elasticity
  3. Extending the free variable incorrectly with fixed contract hours results in an increasing markup

We address three issues

1. The choice of the free input is crucial
   - Basic setup: temporary contract labour hours
   - Alternative: materials
2. Identification issues
   - Use input prices as extra instruments
   - CD & Translog production function
3. Representative dataset
   - All non-financial corporations (i.e. small & large firms in 51 sectors)

Overview empirical studies

- US
  - De Loecker, Eeckhout & Unger (2018): markup *3, 1980-2016
  - Basu (2019)

- Other countries
  - De Loecker & Eeckhout (2018)
  - Diez et al. (2018)
  - Calligaris et al. (2018)
  - Weche & Wambach (2018)
  - De Loecker, Fuss & Biesebroeck (2018), Belgium

2. Methodology

- Standard first-order condition wrt free input *X*

$$p_{it}^{X} = \lambda_{it}^{X} F_{X,it}$$

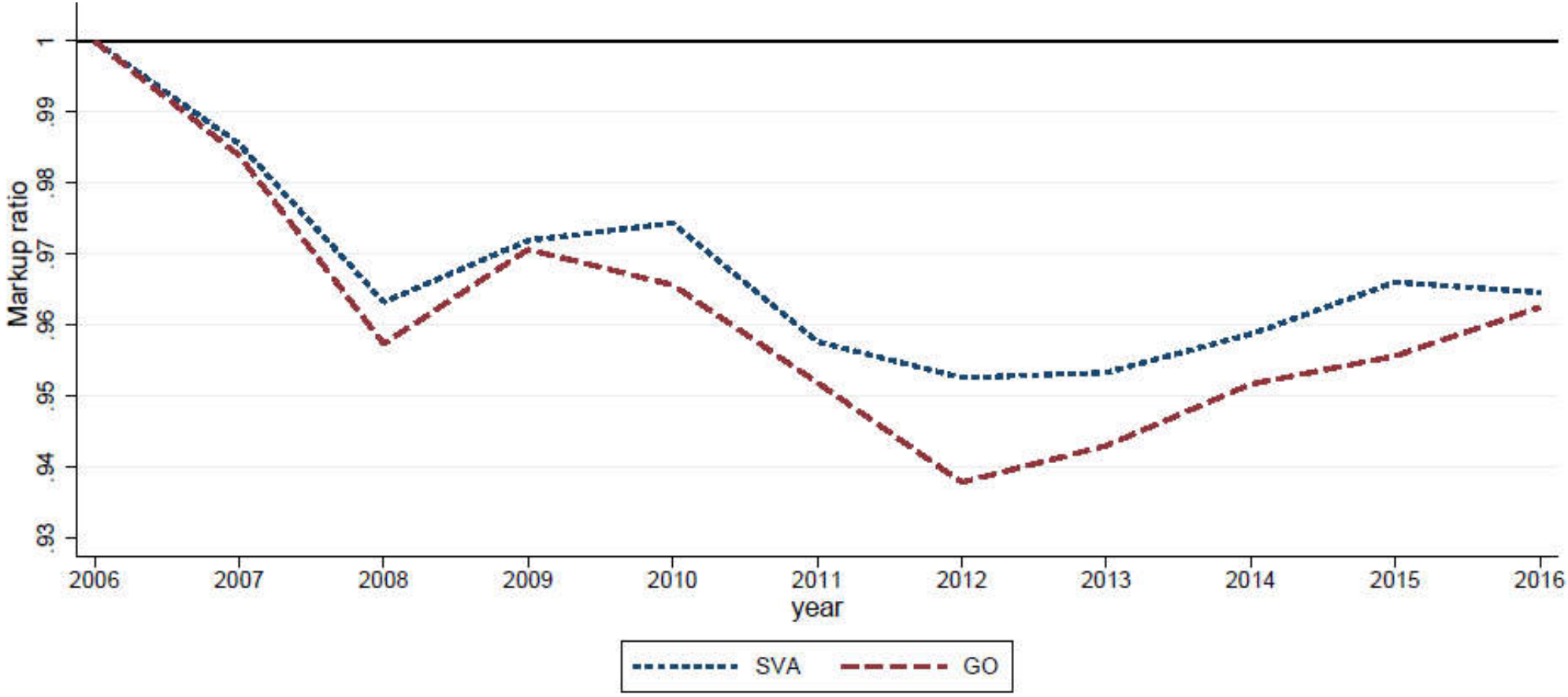
- Simply rewritten to get markup:

$$\mu_{it} = \frac{p_{it}}{c_{it}} = \theta_{it}^{X} \frac{S_{it}}{C_{it}^{X}}$$

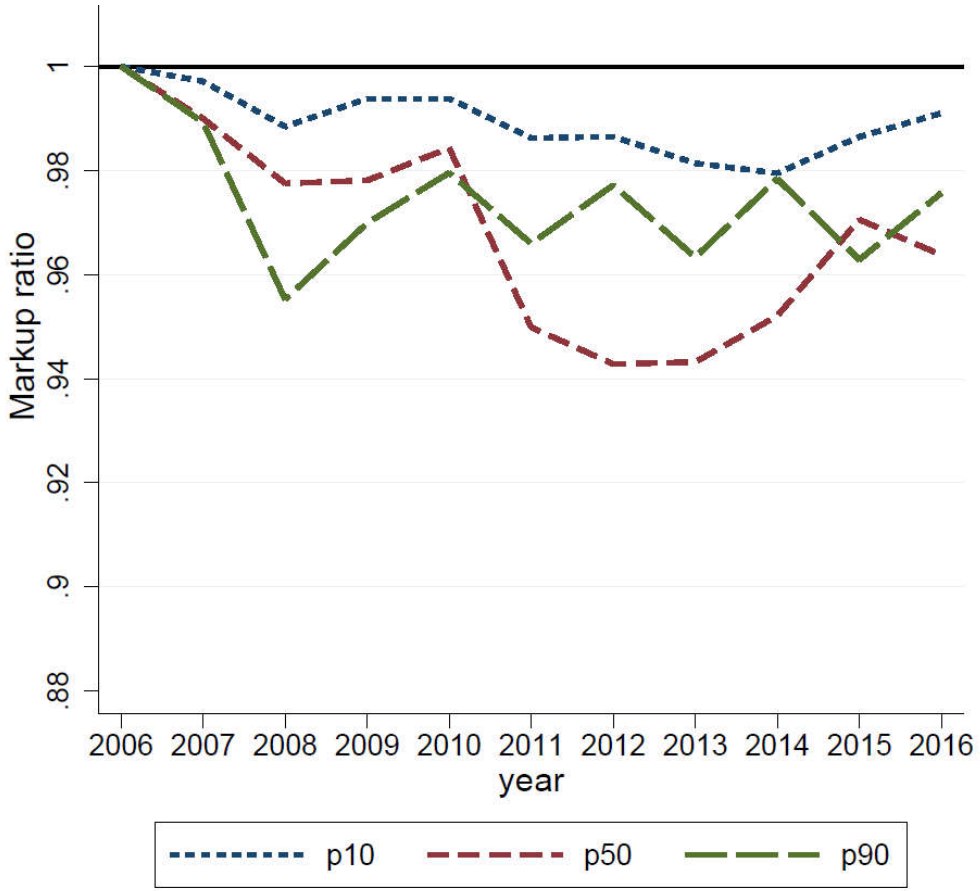
Estimation of the output elasticity

- Basic setup (Q = gross output)
  - Structural value added production function: $Q = F(L^{temp}, L^{fix}, K)$
  - Free input = L^{temp}
- Alternative setup
  - Gross output production function: $Q = F(M, L, K)$
  - Free input = Materials
- F = CD or (2nd order) Translog

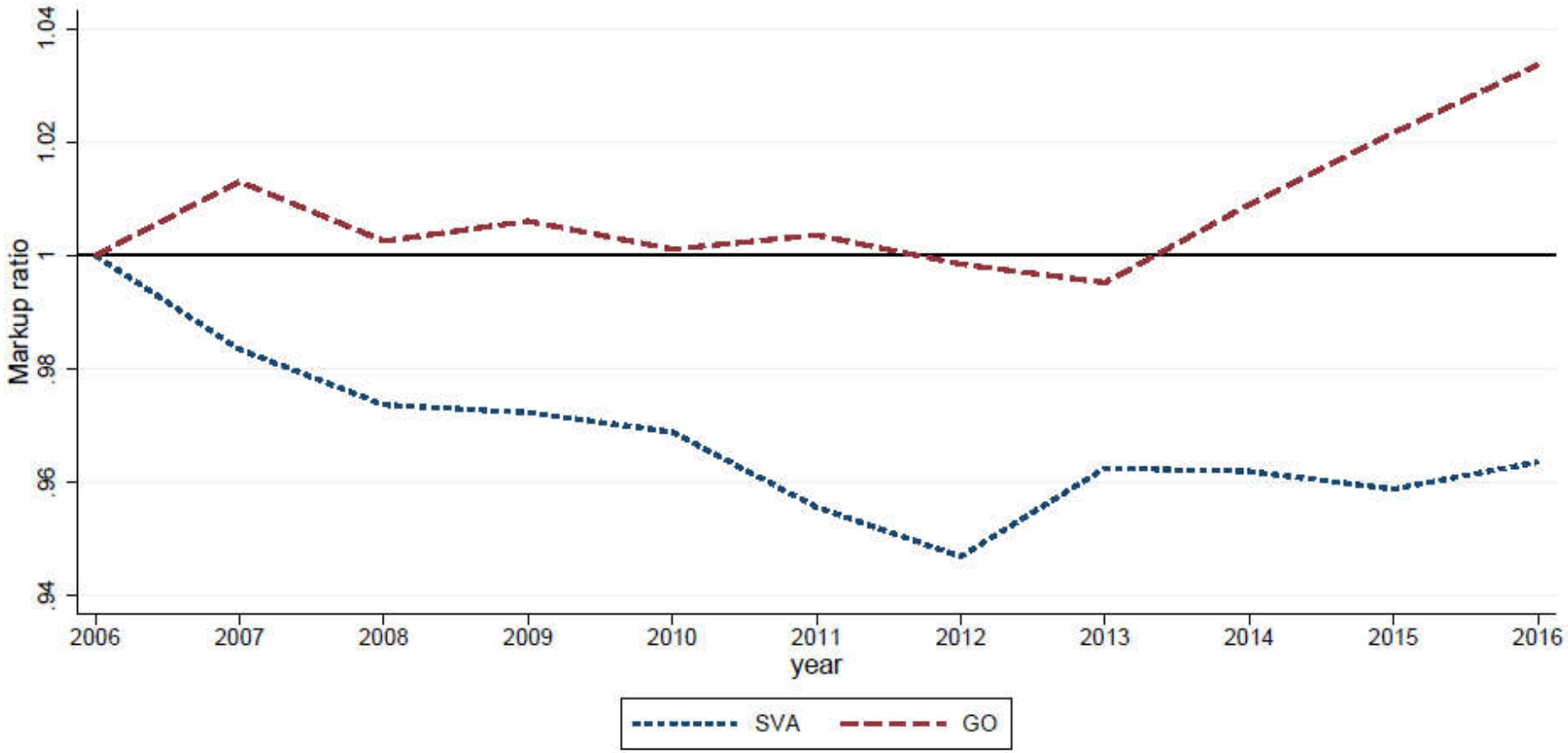
3. **Results:** Stable markups (CD, average weighted, index)



Percentiles stable markups (SVA, CD, average weighted, index)

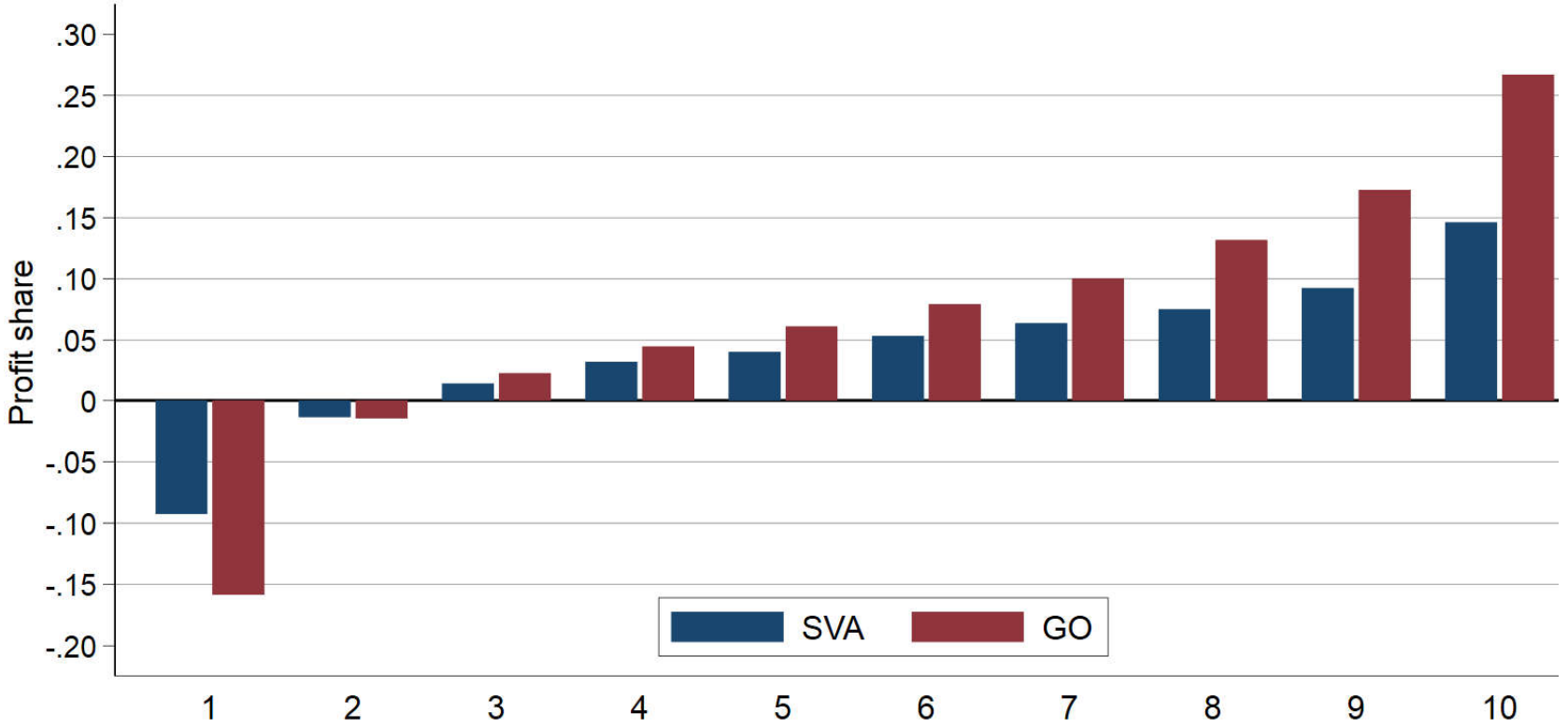


Stable markups with Translog (average weighted, index)

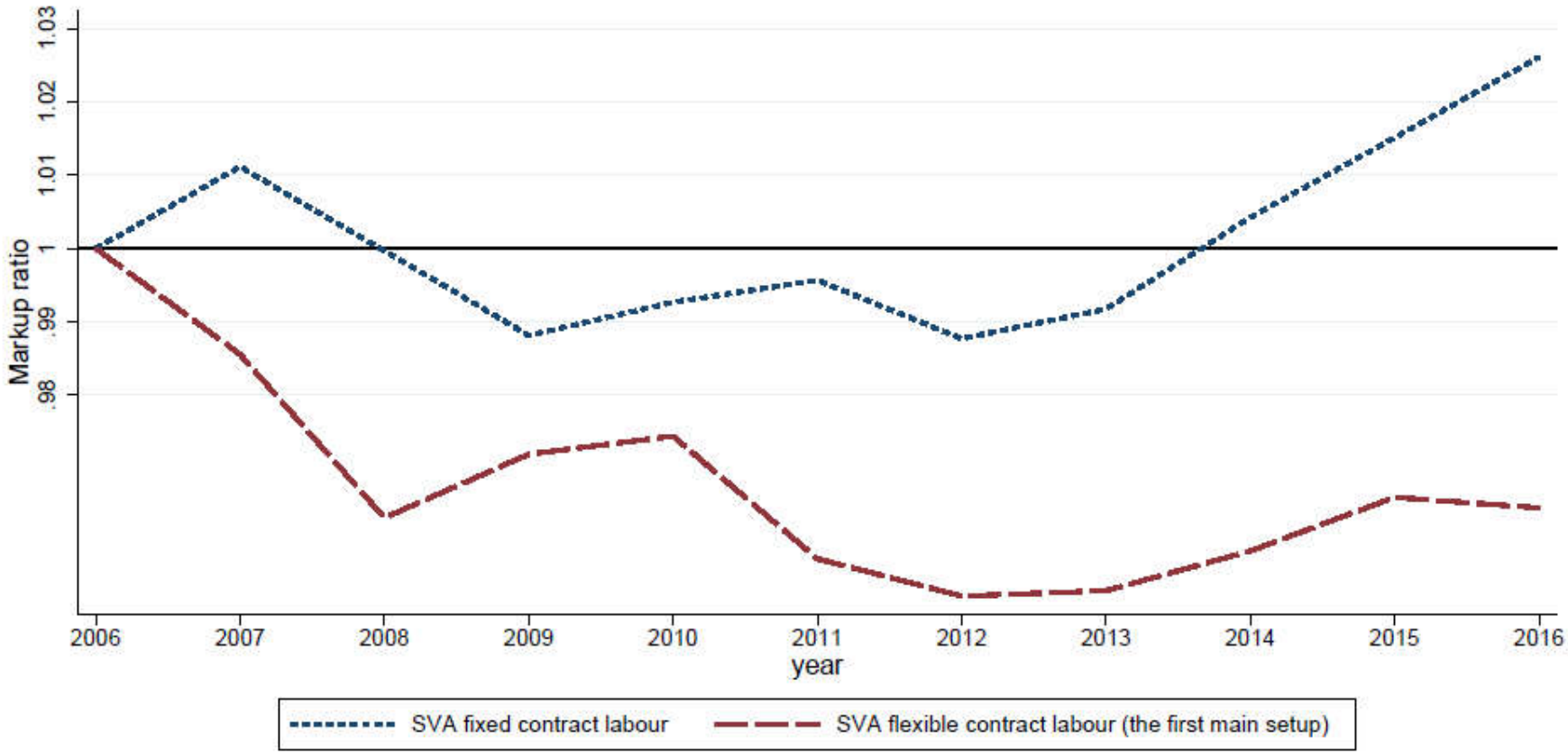


Markups are positively correlated with profit rate

(per decile in 2015)



Sensitivity to extending free input with fixed labour



4. Concluding remarks

Why different results than De Loecker & Eeckhout (2018) for NL?

1. Choice of free input: total ⇔ temporary labour

2. Differences in dataset => which markups are estimated?
   - Large publicly-listed firms ⇔ All firms
   - MNEs: international ⇔ national consolidation of the accounts

References

- WP is forthcoming

- Background document: *Estimating markups in the NL*

http://www.cpb.nl/sites/default/files/omnidownload/CPB-Background-Document-March2019-Estimating-Markups-in-the-Netherlands.pdf