

The Influence of Political Fragmentation on Public Enterprises: Evidence from German Municipalities

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1. Introduction

Public Enterprises:

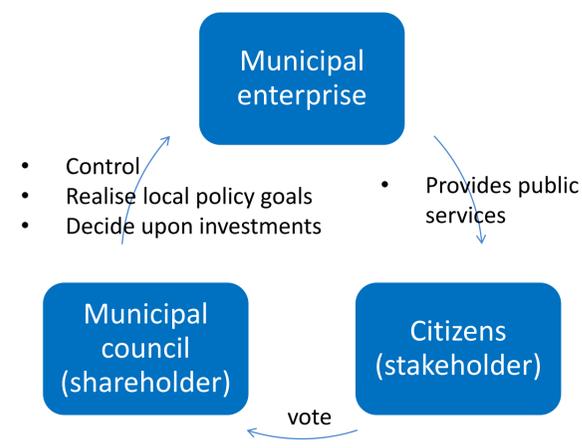
- Hived off from public budgets
- More than 50% of its nominal capital or voting rights held by one or multiple public owners
- Interests and influence of the public sector are still present
- Politicians representing the public sector follow their own incentives and interest

We empirically evaluate two theoretical arguments based on the public choice literature that address how politicians may use public budgets: i) the *common pool problem* (Weingast & Shepsle, 1981) and ii) the *war of attrition* (Alesina & Drazen, 1991) / or *veto player* theory (Tsebelis, 1995).

In our analysis we focus on public enterprises on the municipal level.

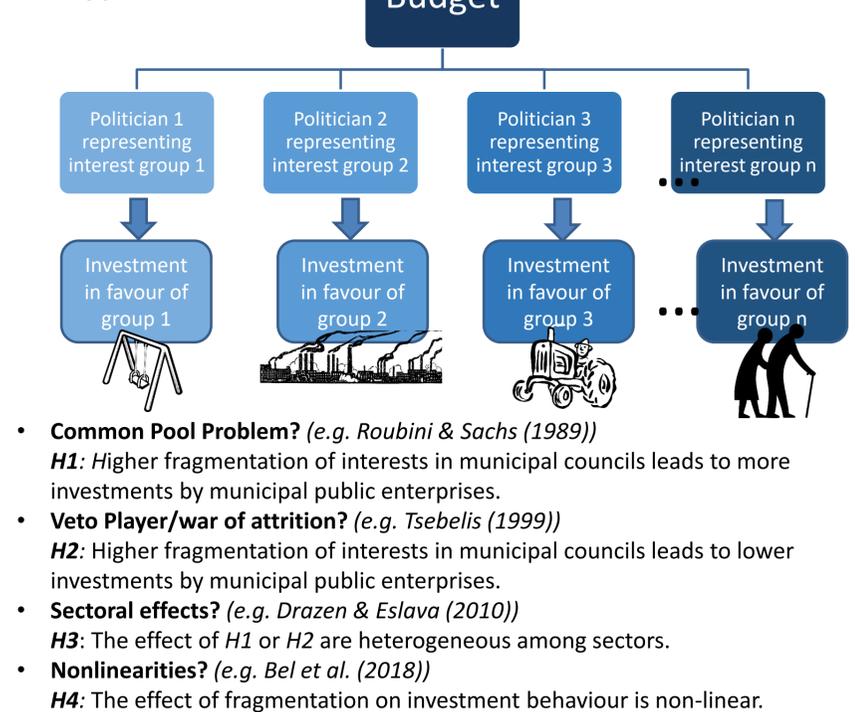
2. Background

Institutional setting of municipal enterprises



Does interest fragmentation in the council influence the investment behaviour of municipal enterprises? And if so, how?

3. Hypotheses



4. Methods and Data

We combine data on the firm (i) level with data on the municipal (j) level:

$$\ln(\text{Investments } pc_{it})$$

$$= \beta_1 ENP_{it-1} + \beta_2 X_{it-1} + \beta_3 Z_{jt-1} + \beta_4 \text{sector}_i + \beta_5 \text{Land}_i + \beta_6 \text{legal_form}_i + \beta_7 \text{ownerst}_i + \beta_8 \text{year}_t + u_{it}$$

- ENP (effective Number of Parties) = index to measure interest fragmentation in the municipal council:
- $ENP = \frac{1}{\sum_{i=1}^N a_i^2}$; N= Number of parties, a_i = Share of seats by party i
- X = ln(sales), degree of public ownership, ownership share index, fixed asset intensity, debt-equity ratio
- Z = debt pc, short term loans pc, income due to business tax pc, unemployment rate, population, population², population density, shares of party ideologies
- Fixed effects on different levels (Land_i , sector_i , ownerst_i , legal_form_i , year_t)
- robust and clustered standard errors on firm level

Annual Data 2002-2014	Data	Source
Firm Level	Balance sheet data of German public enterprises	Research Data Centres of the Statistical Offices of the Federation and the Federal States
Municipal level	Election, socio economic, budgetary data	Federal Statistical Office, Statistical Offices of the Federal States

5. Results

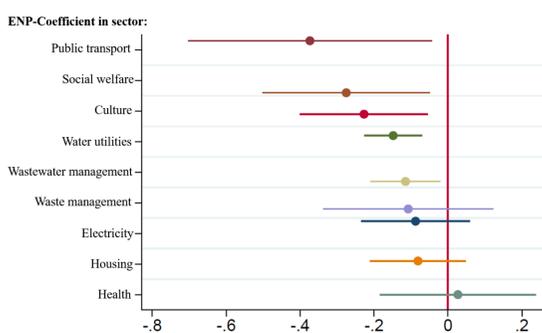
Hypothesis 1 and 2

Dep. Variable: ln(Investment pc)	
ENP	-0.1396*** (0.025)
Control Variables	✓
State, Legal Form, Ownership type, sector fixed effects	✓
Year fixed effects	✓
Observations	57,897
Adj. R ²	0.609

- Negative and significant at the 1%-level influence of the effective number of parties (ENP) on the investments per capita of municipal enterprises.
- Results support **H2**, stating that a rising number of veto players leads to less investment as the fragmentation complicates decision-making.

Hypothesis 3

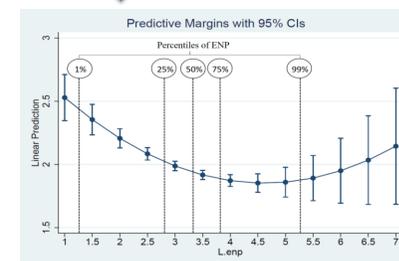
ENP coefficients by sector specific regressions



- We find a (negative) significant influence of ENP for public transportation, social welfare, culture, water utilities and wastewater management
- For the sectors waste management, electricity, housing and health the ENP-coefficient is not significant
- We find heterogeneous results (in line with **H3**) possibly due to different visibilities. The negative effect of the ENP might be more present in sectors of high visibility to voters.

Hypothesis 4

Dep. Variable: ln(Investment pc)		
ENP	-0.4769*** (0.107)	-0.7993** (0.325)
ENP ²	0.0516*** (0.016)	0.1542 (0.099)
ENP ³		-0.0102 (0.010)
Fixed Effects and Control Variables included as before		
Observations	57,897	57,897
Adj. R ²	0.609	0.609



- Significant squared relationship
- Above a certain point of the ENP the common pool effect seems to outweigh the veto player/war of attrition effect

6. Conclusion

This study investigates whether and how politically fragmented municipal councils influence the investment behaviour of municipally owned enterprises.

- On average, we find a **negative** effect of fragmentation on investment, supporting the **veto player/war of attrition** approach.
- Effects are **heterogeneous among sectors** possibly due to different visibilities
- However, testing **nonlinearities** reveals that the **common pool problem cannot be ruled out**. Both effects seem to be at work.

Literature cited

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