MAKE OR BUY URBAN PUBLIC TRANSPORT SERVICES : A RATIONAL CHOICE ?

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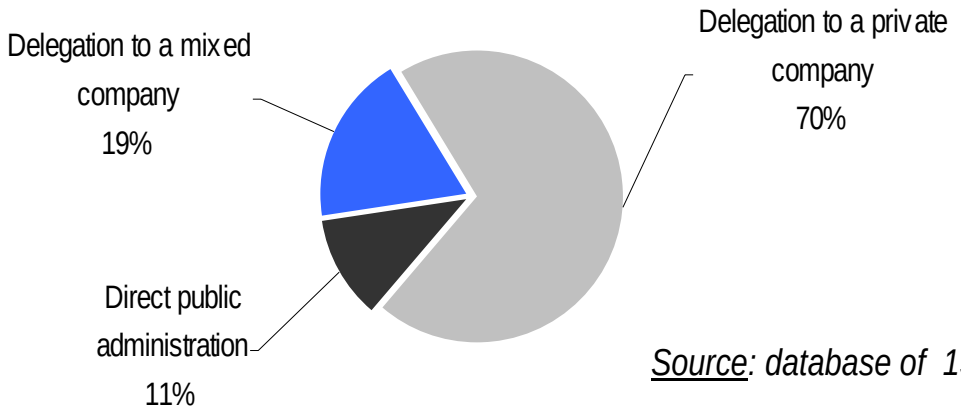
MOTIVATIONS (1)

- The Urban Public Transport Sector in France
  - Three ways to provide UPT services:



Source: database of 159 networks (year 2002)

  - Recent affairs of collusion (Competition Commission 2005) and corruption in the competitive tendering process
  - Several big cities have recently come back to direct public management (*e.g.* Toulouse)

➧ Question of the choice between public and private management not trivial

➧ How to explain the diversity of organizational choices in UPT sector?
  - Political factors (Caillaud & Quinet 1993)?
  - Economic efficiency?

MOTIVATIONS (2)

- '*Make or Buy*' decision : central issue in IO

  → TCE (Coase 1937, Williamson 1985), ICT (Grossman & Hart 1986, Hart & Moore 1988)…

- Most theoritical propositions can be applied to public procurement

  → Trade off inhouse provision / outsourcing

- Huge number of theoritical developments in an incomplete contracting perspective (HSV 1997, Hart 2003, Levin & Tadelis 2007…)

- …but few empirical tests (Ménard & Saussier 2002, Levin & Tadelis 2007)

  → Main contribution of the paper: Econometric test of the determinants of organizational choices in local public services

CONTRACTING FOR SERVICES : THEORY (1)

- Without considering contracting costs, private management is more efficient (Gagnepain & Ivaldi 2002, Roy & Yvrande-Billon 2007)

- When introducing contracting costs : trade off between the benefits of private procurement in terms of productive efficiency and the contracting costs

Proposition 1: Public authorities are less likely to outsource the provision of public services when external contracting difficulties increase, that is when it is harder to specify, enforce and adjust delegation contracts

CONTRACTING FOR SERVICES : THEORY (2)

- In fully competitive environments, decision to outsource only dictated by efficiency considerations

- But, in utilities sectors, political and institutional constraints are likely to play a substantial role (Boycko, Shleifer & Vishny 1996)

Proposition 2: Institutional and political concerns play a role in the service provision decisions made by local authorities

DATA

- Data : 159 French UPT networks (year 2002)

- Ordered probit: $DELEG_i = \alpha A_i + \varepsilon_i$

Where :

- $DELEG_i$: Organizational mode chosen by the local authority *i*

→ Polytomic variable = 1 if the service is provided in house
= 2 if the service it outsourced to a semi-public company
= 3 if the service it outsourced to a fully private operator

- A_i: Vector of explanatory variables

DATA

Complexity and physical characteristics of the network

- *$POPSIZE_i$:* Number of inhabitants in the area *i* (-)
  - *$POPSIZE1_i$: pop. < 50K inhab.*
  - *$POPSIZE2_i$: 50K < pop. < 100K inhab.*
  - *$POPSIZE3_i$: pop. > 100K inhab.*

  → *the more inhabitants, the more difficult it is to write, monitor and adapt a delegation contract*

- *$NBCITIES_i$:* Number of cities in the area *i* (-)

  → *the more cities in the area, the more difficult the specification of the contract with an external provider*

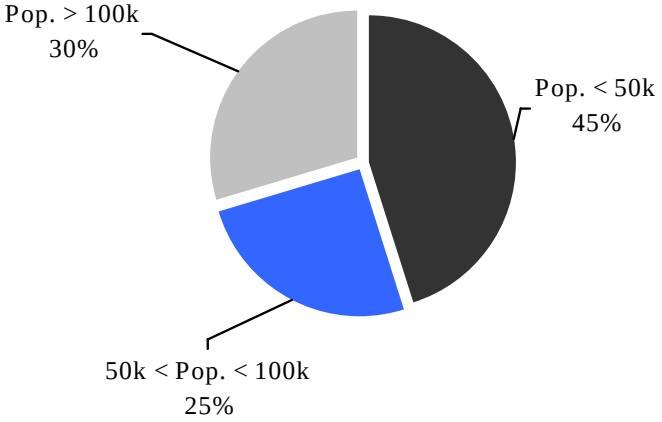
- *$HEAVYMODES_i$:* Dummy =1 if the network includes a mass transit system (-)

  → *networks with mass transit system are more complex to operate*

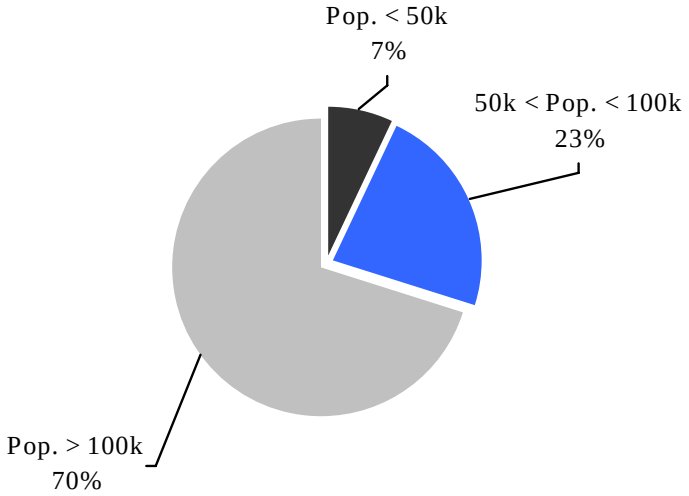
- *$SIZE_i$:* length of the network in kilometres (-)

DATA

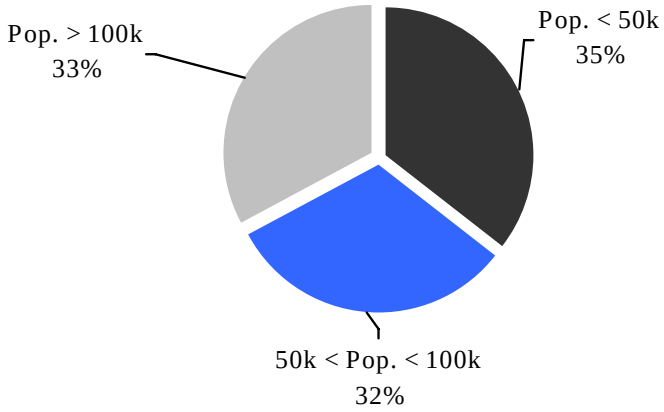
Direct public administration (11 networks)



Delegation to a semi-public company (30 networks)



Delegation to a private company (111 networks)



DATA

Uncertainty

- 2 kind of risks in UPT:
  - ✓ Industrial risk, *i.e.* on operating costs
  - ✓ Commercial risk, *i.e.* on commercial revenues
- Low uncertainty on costs
- High uncertainty on demand for transport → high uncertainty on commercial revenues
- Proxy for the level of uncertainty: Standard deviation of commercial revenues between 1995 and 2002 ($VREC_i$) (-)
- $SPEED_i$: Average commercial speed in 2002 (+)

DATA

Political orientation of the region to wich the LA belong (1998 regional elections)

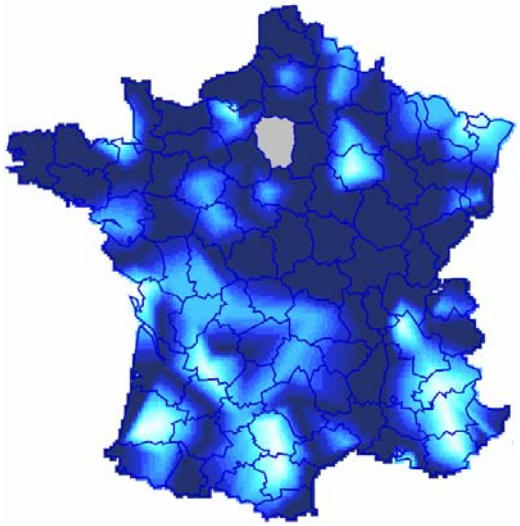
- Variable $POLITICS_i$ = 1 if there is absolute majority for left-wing orientated parties
  = 2 if there is a relative majority for left-wing orientated parties
  = 3 if left and right-wing orientated parties have the same number of seats
  = 4 if there is a relative majority for right-wing orientated parties
  = 5 if there is a absolute majority for right-wing orientated parties

→ LAs located in right-wing orientated areas are more likely to outsource

Influence of surrounding LAs

- Recent works in spatial economics (Chong *et al.* 2006, Plunket *et al. 2008)*
  → *incidence of the organizational choices made by surrounding cities on the decision taken by a particular LA*

- Variable $DELEGREG_i$: proportion of networks managed by private operators in the same region (city *i* excluded) (+)



DATA

Legal status of local authorities

- 2 main types of inter-cities arrangements:
  - Inter-cities arrangements created especially to ensure the provision of UPT services
  - Inter-cities arrangements created for other reasons than being able to finance and provide urban transport services
- Dummy $INTERCOMADHOC_i$ = 1 when the inter-cities arrangement is *ad hoc* (-)

RESULTS (1)

- *POPSIZE*$_i$: large cities (*i.e.* with more than 100,000 inhabitants) are less likely to outsource the provision of urban transport services than medium size cities, but…
  - Medium size cities tend to delegate less than small ones → *capabilities differential ?*

- *NBCITIES*$_i$*:* negative and significant coefficient

- *HEAVYMODES*$_i$*:* not significant

RESULTS (2)

- $VREC_i$: significant but positive coefficient

  → *in the presence of a high level of uncertainty, LAs might prefer to transfer commercial risks to private companies that operate on several markets (greater ability to mutualize the risks ?)*

- $VREC*POPSIZE1_i$ *et* $VREC*POPSIZE3_i$: significant and positive coefficients, and coefficient of $VREC*POPSIZE1_i$ > $VREC*POPSIZE3_i$

  → *the smaller the city and the higher the level of uncertainty, the higher the probability of outsourcing*

- $SPEED_i$: negative and significant coefficient

  → *endogeneity problem ?*

RESULTS (3)

- *POLITICS*$_i$: significant and positive coefficient (but colinearity problem with *DELEGREG*$_i$)

  → *Cities located in left-wing orientated areas tend to provide the service in-house*

- *DELEGREG*$_i$: significant and positive coefficient

  → *The higher the proportion of networks managed by private operators in the same region, the higher the probability to outsource*

- *INTERCOMADHOC*$_i$ *:* not significant

CONCLUSION

- Main result: political factors are not the only determinants of the organizational choices made by LAs. Econometric results corroborate our general prediction that there is an economic rationale behind the LAs' choices.

- To be done:

  - Introduction of 3 other variables:

    - Organizational modes in the other public services
    - Index of industrial concentration in the region to which the LAs belong
    - Budgetary constraints of LAs

  - Impact of the organizational choices on performances