EFFICIENCY OF ALTERNATIVE TENDERING MECHANISMS FOR ROAD PUBLIC-PRIVATE PARTNERSHIPS

Antonio Sánchez Soliño
Associate Professor, Construction Department, Universidad Politécnica de Madrid

Pilar Gago de Santos
Researcher, Construction Department, Universidad Politécnica de Madrid
AGENDA

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  - Preferred Procedures within the EU-27
- Empirical evidence: Quantitative analysis of Transaction Costs
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- Conclusions

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INTRODUCTION

☐ Our aim:
To enhance good practices in the launching phase of PPP transport infrastructure projects

☐ Our outcome:
Higher transaction costs in negotiated procedures
Negotiations may be unnecessary in certain projects
EU Legal Framework: Procurement Procedures

- Procedures: There is a common legal framework for all EU countries, stemming from the EC Directive/2004/18/EC

- Open Procedure
- Restricted Procedure
- Negotiated Procedure
- Competitive Dialogue

In force since January 31, 2006
Open Procedure: Features

- Any economic operators may submit a tender
- Binding proposals, not to be changed or negotiated
- Contract awarded on the basis of the “most economically advantageous tender”
- Enhances Competition in the tendering phase
- Makes it easier the comparability of the proposals
- The PPP model must be precisely defined in advance by the Public Authority (advanced bidding documentation, clear understanding of goals and means)
Negotiated Procedure: Features

- Contracting authorities consult the economic operators of their choice
- The terms of the contract are negotiated with some of those operators
- Normally, the procedure is structured in different stages (pre-qualification, invitation to negotiate, Best and Final Offer, Preferred Bidder)
- Negotiations still go on with the Preferred Bidder
EU Legal Framework: Procurement Procedures

☑ Preferred Procedures within the EU
  ✔ Open Procedure (but also Negotiated)
    ✔ Germany and Spain
  ✔ Restricted Procedure
    ✔ Greece
  ✔ Negotiated Procedure (prone to Competitive Dialogue)
    ✔ The UK, Netherlands, Ireland, Portugal, other.
Quantitative analysis of Transaction Costs: Methodology

REGRESSION ANALYSIS

\[ Y_i = \beta_1 + \beta_2 X_i + \sum_{k=1}^{m} \beta_k Z_{ki} + \epsilon_i \]

where:

- \( Y_i \) : (natural logarithm of) transaction costs in project \( i \)
- \( \beta_1, \beta_2, \beta_k \) : coefficients to be determined
- \( X_i = 1 \) for negotiated procedure
- \( X_i = 0 \) for open competition procedure
- \( Z_{ki} \) : other features of project \( i \) (capital value, type of project, etc.)
- \( \epsilon_i \) : an error term
Quantitative analysis of Transaction Costs: Methodology

\[ Y_i = \beta_1 + \beta_2 X_i + \sum_{k=1}^{m} \beta_k Z_{ki} + \varepsilon_i \]

- \( H_0 : \beta_2 = 0 \)
  - If \( H_0 \) is rejected at a certain significance level:
    - There is a relationship between the procurement procedure used to launch the project and the transaction costs involved.
    - Analysis and testing the significance of other parameters \( \beta \)
- Variables in the Regression:
  - Procurement Procedure
  - K value
  - Type of Infrastructure
  - Number of Bidders
Quantitative analysis of Transaction Costs: Input data

Criteria for the sample projects:
- Road and Railway PPP projects in the European Union
- Mostly Greenfield projects but also Upgrading and Maintenance
- Data availability: data collected in six countries (Ireland, Portugal, UK, Spain, Netherlands and Austria)
- Transaction Costs for the Public/ Private Sector
  - Public partner: 18 observations
    - 12 Roads, 6 Railways
    - 8 Negotiated, 10 Open Procedure
    - Average Capital Value: €380 million
  - Private partner: 35 observations
    - 30 Roads, 5 Railways
    - 21 Negotiated, 14 Open Procedure
Quantitative analysis of Transaction Costs:
Input data

- Data collected on PPP projects:
  - Transaction costs restricted to the procurement phase
  - Procurement Procedure (PP)
  - Project Size (Capital Value)
  - Type of Transport Infrastructure
  - Number of Bidders

- EU Country (high correlation with PP)
- Procurement Time (high correlation with PP)
- Others:
  - Contract Length
  - Contract Authority
  - Project Description
Quantitative analysis of Transaction Costs: Results

TC for the Private partner. Results of the Regression Analysis

- Number of variables (including intercept) = 3
- Number of observations = 35
- R Squared = 0.7757
- Adjusted R Squared = 0.7617
- F = 55.3479

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient $\beta$</th>
<th>Standard error</th>
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<td>Intercept</td>
<td>-2.5356</td>
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Private sector model. Observed/predicted values for (logarithm of) transaction costs
Quantitative analysis of Transaction Costs: Open vs. Negotiated Procedures

Transaction Costs (% on Capital Value)

- Public sector
- Winning bidder
- Failed bidders
- TOTAL COSTS

Open
Negotiated

www.irf2010.com
CONCLUSIONS

✓ One of the principal reasons for high transaction costs in PPPs is the use of the Negotiated procedure.

✓ There is room for important savings in tendering PPP projects, by using an Open procedure. Negotiations may be unnecessary in most PPP transport projects.

✓ To ensure VFM: Strong competition among bidders in the Open procedure.
CONCLUSIONS

✓ No negotiations do not imply that the Open Procedure cannot ensure:

- Enough risk-transfer to the private sector
  ✓ Competition for the risk-transfer structure (Awarding criterion in the bid specifications)
- Technical innovations achieved through:
  ✓ Technical awarding criteria
  ✓ Definition of quality indicators
THANK YOU!

ANTONIO SÁNCHEZ SOLIÑO
asanoli@ciccp.es