IMF Seminar
"Strengthening Public Investment and Managing Fiscal Risks from Public-Private Partnerships (PPPs)"

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Session 4: Addressing Key Challenges in PPP Design

PPPs and Value for Money

Theory and Practice

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This presentation is based on joint research with Christian von Hirschhausen.

Agenda

1) Characteristics and Objectives of PPPs

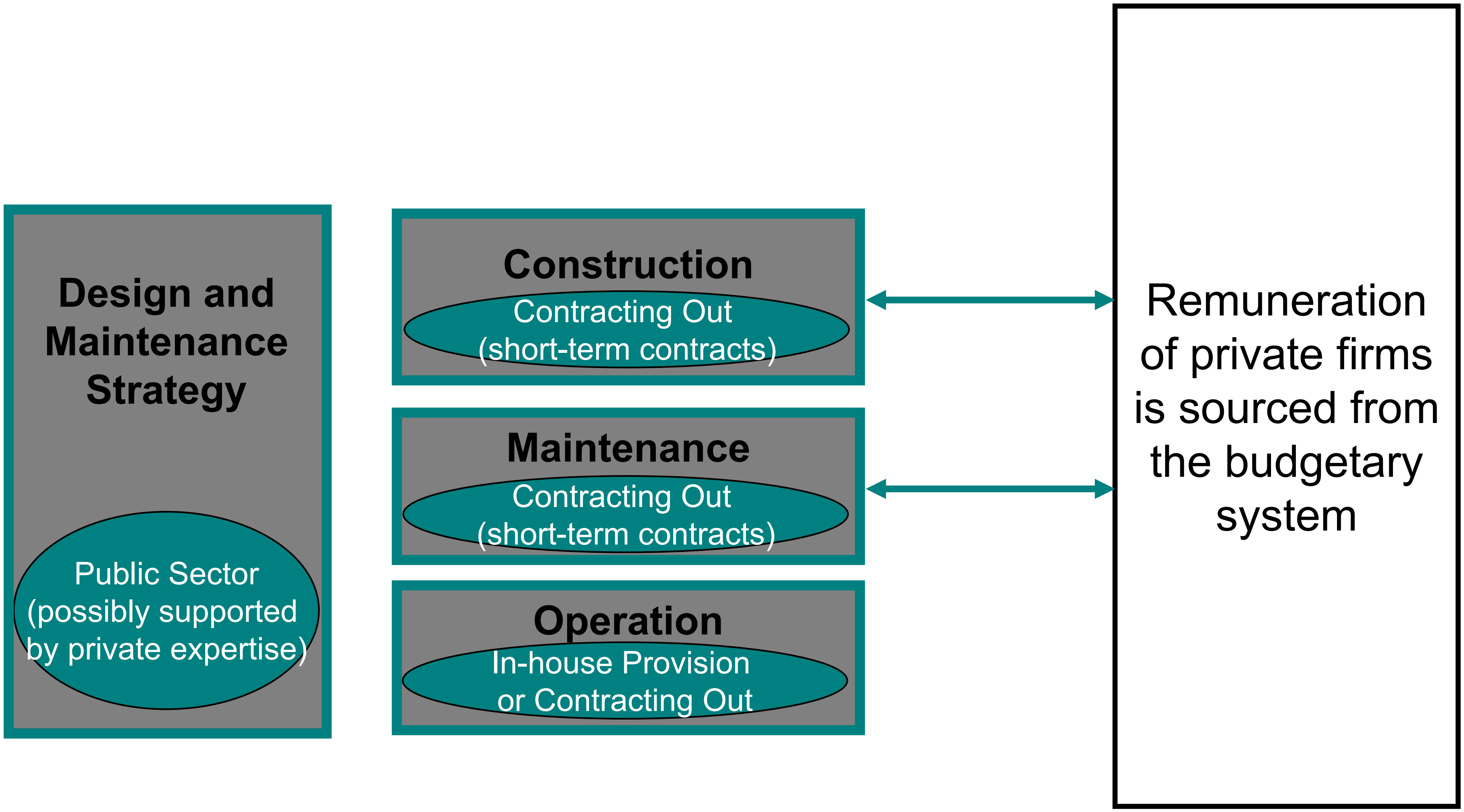
2) PPPs vs. Conventional Procurement Route

3) PPPs and Private Finance

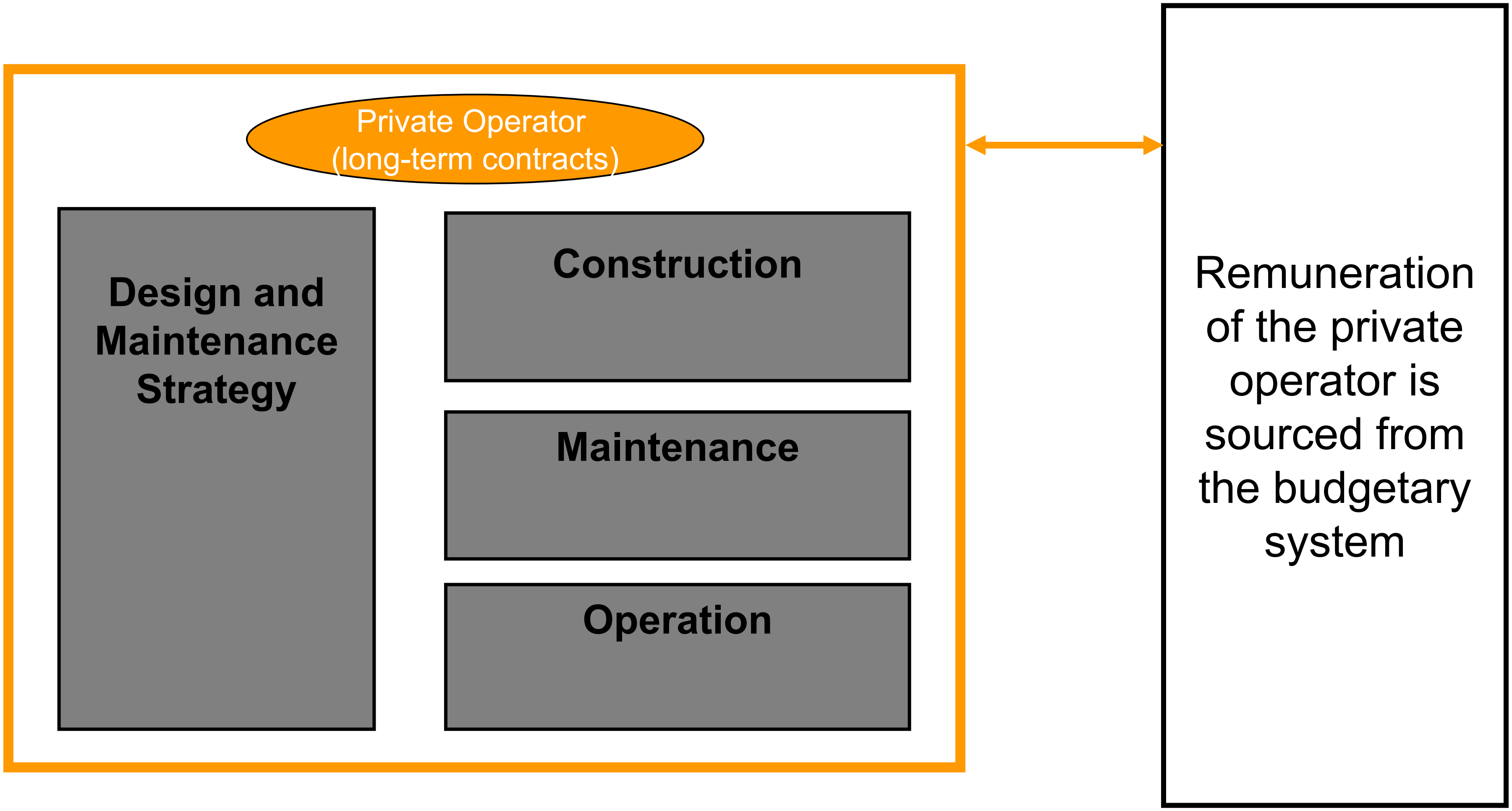
4) Value for Money Assessments

5) Conclusions

Characteristics of the Conventional Procurement Route



Characteristics of PPPs



Value for Money (VfM)

- **Criteria for the evaluation of different procurement routes**
  - Costs
  - Quality
  - External effects
  - …
- **According to the definition of UK Treasury all these criteria influence Value for Money (VfM)**
- **Cost-efficiency is the central element of VfM**
- **A procurement route is cost-efficient if it minimizes the costs (~ NPV of budgetary expenditures) for the production of a given output**
- **Discussing VfM of alternative procurement routes we focus on cost-efficiency**

Agenda

1) **Characteristics and Objectives of PPPs**

2) **PPPs vs. Conventional Procurement Route**
   - Strengths and Weaknesses of PPPs
   - Conclusions on the Cost Efficiency of PPPs

3) **PPPs and Private Finance**

4) **Value for Money Assessments**

5) **Conclusions**

Cost-Efficiency: Strengths and Weaknesses of PPPs

(derived from theoretical considerations and practical experience)

Strengths of PPPs

(+) Incentives to reduce life-cycle costs can be implemented

(+) Maintenance strategy is neither affected by budgetary constraints nor by short-term-oriented political influence

Weaknesses of PPPs

(–) High transaction costs in the contract preparation phase as parties involved require a contract which will protect them against a hold-up in the long-term relationship

(–) Lower flexibility → problems in case contracts have to be modified

- TAC negotiating changes and modifying the contract
- No competition determining the price for changes

(–) Problems determining the residual value of the assets at the end of the life time negatively influence the incentives to reduce life-cycle costs

(–) Private actors have higher costs of risk bearing than the public sector.
Private actors bear more risks in PPPs.
Higher overall costs of risk-bearing in PPPs.

Conclusions on the Cost-Efficiency of PPPs

- **Theoretical Considerations and the empirical evidence do not provide a conclusive answer to the question of the cost-efficiency of PPPs**

- **Cost savings in PPPs seem possible …**

  … if the appropriate projects are chosen
    - low complexity
    - low parametric uncertainty

  … and if the following conditions are fulfilled:
    - efficient risk allocation
    - appropriate contract design (including renegotiation design)
    - stable and competent institutions in the public sector
    - competition in the tendering phase

Agenda

1) Characteristics and Objectives of PPPs

2) PPPs vs. Conventional Procurement Route

3) PPPs and Private Finance
   - Political Economy Analysis
   - Contributions from Contract and Finance Theory

4) Value for Money Assessments

5) Conclusions

PPPs and Private Finance: Political Economy Analysis

- **EUROSTAT rules facilitate off-balance sheet financing of governments (mis)using PPPs**

- **Selection bias towards PPPs (and against conventional procurement route) should be avoided**
  - Private financing should not be misused to bypass budgetary rules
  - It should be considered to modify the current EUROSTAT rules

PPPs and Private Finance: Contributions from Contract and Finance Theory (1/2)

- **The amount of private capital to be included in a PPP is determined by the time structure of the remuneration**

→ **PPPs could also be realized without including private finance**

- **Contract and finance theory give a rationale for including private capital in PPPs**
  - **Private capital serves as "financial hostage" in the long term contract between the public sector and the private operator**
    - Private capital in PPPs protects the public sector in case of bankruptcy of the private operator
    - Private capital in PPPs avoids (or reduces) false incentives for the private parties in the bidding phase and for the private operator
  - **A complete protection of the public sector which requires an extensive inclusion of private finance is not efficient (cp. STIGLITZ / WEISS (1981), BESTER (1985))**

PPPs and Private Finance:
Contributions from Contract and Finance Theory (2/2)

- **There are also alternative financial instruments which can serve as financial hostages in PPPs and consequently substitute private capital**
  - Warranties
  - “Credit Guarantee Funding Scheme” (currently applied in the UK)
- **These financial instruments can reduce incentives for misusing PPPs to bypass budgetary rules**
- **Criteria for the selection of the appropriate financial instrument to serve as financial hostages in PPPs**
  - Avoiding false incentive to bypass budgetary rules
  - TAC and competition effects
  - Effect of financial instruments on the flexibility in PPPs

Agenda

1) Characteristics and Objectives of PPPs

2) PPPs vs. Conventional Procurement Route

3) PPPs and Private Finance

4) Value for Money Assessments
   - Rationale
   - Design
   - Institutional Aspects

5) Conclusions

Rationale for Value for Money Assessments

- **Facilitating rationale decisions choosing between different procurement routes for the realization of individual projects**

- **Understanding strengths and weaknesses of alternative procurement routes in different sectors to improve procurement strategies**
  - Selection of the most efficient procurement route for future projects
  - Lessons for future project and contract design

Design of VfM Assessments

- **VfM assessments include qualitative and quantitative elements**
- **Quantitative VfM assessments compare the NPV of the costs of a PPP with the Public Sector Comparator (PSC)**

PPP	PSC (costs of the conventional procurement route)
• Remuneration of the private operator • Costs due to retained tasks in the public sector • TAC (PPP) • Possible cost disadvantages of PPPs in comparison to the conventional procurement route in case of changes in the project requirements • …	• Planned costs for construction, maintenance, operation etc • Markups on planned costs to cover the discrepancy between planned and expected costs • TAC (conventional procurement route) • …

- **Appropriate discount rate to calculate the NPV: Social time preference (~ borrowing rate of the public sector)**

Cp. SPACKMAN (2004), HM TREASURY (2003)

Institutional Aspects of VfM Assessments

- **Possible false incentives for public institutions and advisers involved in PPPs working on VfM assessments**

- **Possible strategies to reduce this problem:**
  Incentive compatible separation of tasks and competencies

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Conclusions

- **Cost savings in PPPs seem possible …**
  - … if the appropriate projects are chosen (low complexity, low uncertainty)
  - … and if the following conditions are fulfilled
    - efficient risk allocation
    - appropriate contract design (including renegotiation design)
    - stable and competent institutions in the public sector
    - competition in the tendering phase
- **Private finance or alternative financial instruments serve as hostages in PPPs.**
- **EUROSTAT rules facilitate off-balance sheet financing of governments (mis)using PPPs. A selection bias towards PPPs (and against conventional procurement route) should be avoided. It should be considered to modify the current EUROSTAT rules.**
- **An incentive compatible separation of tasks and competencies for the realization of VfM assessments is essential for getting objective and realistic results.**

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Thank you very much for your attention!

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BACK UP

Project Characteristics, Appropriate Remuneration Schemes and Performance of the Different Procurement Routes

		Procurement Route		
		Conventional procurement route		PPP
Project Characte-ristics	Projects with low complexity and low uncertainty	Fixed price or unit price contracts for separately tendered construction and maintenance works (short-term contracts)	? VfM	Private operator should bear cost risks in principle (~ fixed price contracts)
	Projects with high complexity and high uncertainty	Fixed price or unit price contracts for separately tendered construction and maintenance works (short-term contracts)	VfM !	Determination of remuneration in regular negotiations (or by regulatory decision) considering actual and future costs applying incentive remuneration schemes (~ price cap regulation)

Theoretical considerations and empirical evidence indicate that PPPs are more appropriate for projects

- where complexity and uncertainty are low
- where it is in principle advantageous to pass cost risks for the life time of the contract to the private operator

PPP vs. Conventional Procurement Route: Theoretical Considerations by HART (2003)

		Specification of the service	
		Not difficult /possible	Difficult
Specification of the construction task	Not difficult /possible	?	Conventional procurement route
	Difficult	PPP	?

- **HART (2003) explicitly considers the incentives for reducing life-cycle costs in PPPs**
- **For the evaluation of the cost efficiency of different procurement routes additional aspects have to be considered**
  - Disadvantages due to inefficiencies within the public sector and due to political interference applying the conventional procurement route
  - Flexibility and PPPs: Problems when contracts have to be modified
  - Problems determining the residual value of assets at the end of the contract period in PPPs can reduce incentives to minimize life-cycle costs
  - …