

THE USE OF PPPS IN PORTUGAL

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This Presentation is based on the Paper:
Do Public Private Partnerships create Value for Money for the Public Sector?

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- Over the last few decades, PPP have been increasingly used by governments around the world to finance and manage complex operations in public investment.
- Over the last years, the main discussion in the literature about PPP has been whether the arrangement is on, or off, the balance sheet. It has not been about whether or not it represents good value for money (VfM).
- This study goal was to determine what is the best methodology to evaluate VfM
- However, the decision on which investment to realize is not on the subject of this study!

This Presentation is structured in 4 parts:

1. PPP, VfM and PSC theoretical approach
2. An overview of the Portuguese experience
3. The study of the PPP SCUTS case
4. Conclusions of the study.

There are 4 methods to evaluate the option “traditional procurement” vs PPP

- Cost – Benefit analyses
- Public Sector Comparator (PSC) prior to the bid
- PSC after the bid
- Reliance on a competitive bidding process

In our opinion, countries should use the **PSC prior to the bid**

- Better methodology to disclose the cost if the project is done by the public sector.
- Reliance on a competitive bidding process, even with the lowest price, does not ensure VfM.
- PSC is less complex than a Cost – Benefit analyses.
- PSC after the bid, although it may demonstrate VfM, if not, obliges to a renegotiation (even more complex than the original bid).

PPP, VfM and PSC

Using **PSC effectible** requires **3 pre-conditions**:

- ***Off-balance sheet***: The government's decision to use a public-private partnership scheme is not already determined by the need to remove an investment from its balance sheet.
- ***Affordability***: the cost of the project is included within the constraints of the budget and is financially sustainable in the long term.
- ***The opportunity-cost test***: the investment should be needed and there is no better alternative for the taxpayers' money.

RISKS

- Should be allocated to the part that is capable of **best manage**.
- **Most complex, but most important issue in the PSC.**
- It is in the **Risk Transfer that most of private sector efficiency can be obtain.**
- A **PSC that it's not adjust to risk** do not assure a realistic view of the project.
- **Financial Costs are always lower in Public Sector (risk-free rate).**
- Therefore, Private Sector must be more efficient in **managing risks and operational costs.**



Corporate Taxes

- The tax revenues from the private initiative have to be accounted for in the Public Sector Comparator.
- Necessary to calculate **NPV** of those in-flows to Public Sector.
- That value should be deducted to the PPP cost, and add to the PSC cost.

DISCOUNT RATES:

We do not think that the public sector should exclusively use the private sector rate.

We also do not agree with the simple use of the public debt interest rate.

DISCOUNT RATES	PPP	PSC
R_f : risk-free rate	Payments Retained risks	Capital expenditures Retained risks
$R_u = R_f + \beta_u [R_m - R_f]$	N/A	Operational costs Transferred risks
$R_e = R_f + \beta_l [R_m - R_f]$	Corporate tax	Corporate tax

Note: With β_u the unlevered beta and β_l the levered beta.

Calculating PSC:

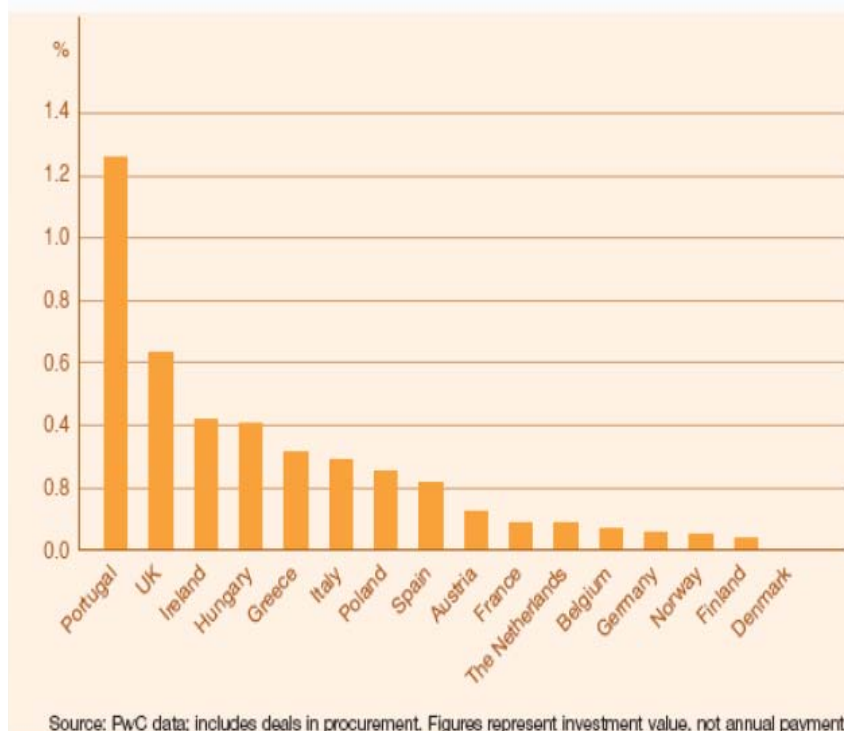
Other method: *Incremental cash-flows*

GAINS (NPV)	LOSSES (NPV)
Capex	Payments to the private bidder
+ Reinvestments or major reparations	- Corporate taxes PPP
+ BCP = [(direct costs + indirect costs) – Revenues]	
+ Corporate taxes PPP	
+ Transferred risks	

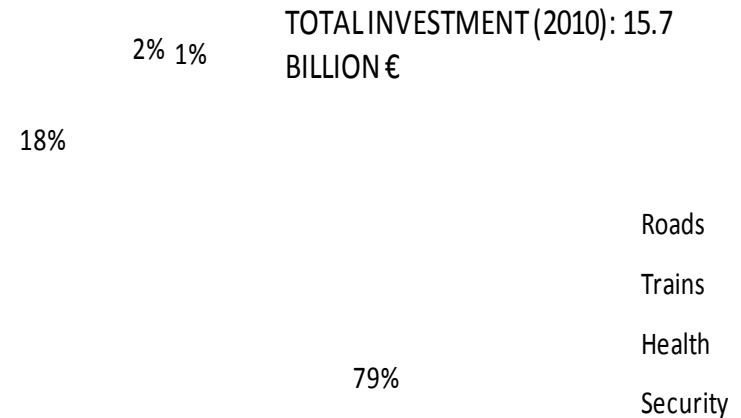
If NPV > 0 – Choose PPP
If NPV < 0 – Choose PSC

PORTUGUESE EXPERIENCE ON PPP

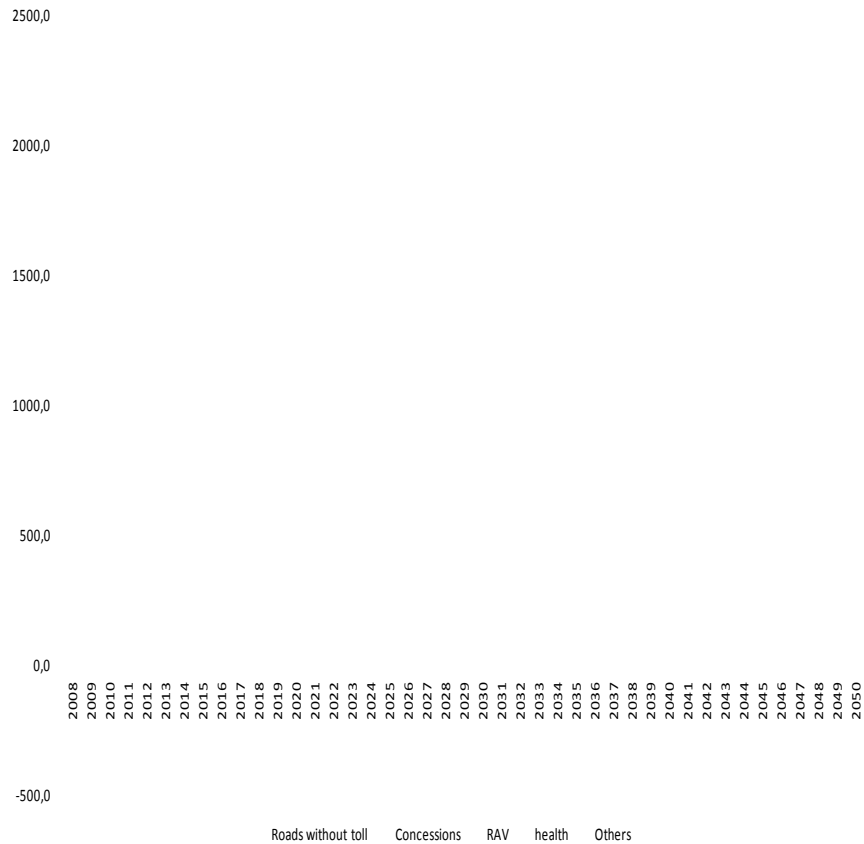
*Investment values in public-private partnerships'
2000-2005 as % GDP*



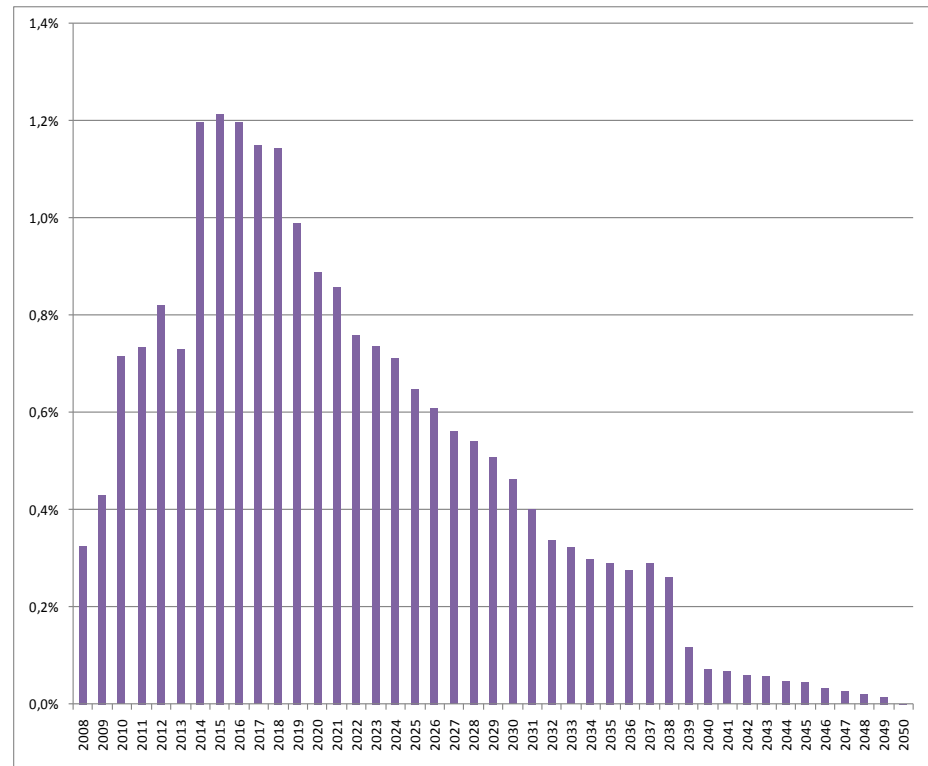
*Investment values in public-private partnerships' - 2010
Total amount and % per sector*



PPP Annual Payments in Million €



PPP Annual Payments in % GDP



Source: Ministry of Finance PPP Report – 2008 Data. Calculations made by the author

- Construction between 1998 and 2002.
- 930 km of Highways.
- Capital Expenditure: 3 Billion €.
- “without costs to the user”.
- Shadow toll payment, where the state budget, rather than the users, pays the private consortium.



The purpose of the study was to calculate the NPV of both options: PPP vs PSC, and determine PPP VfM

Data used

- Payments started in 2006 and will follow until 2031.
- Yield to mature of 10-years Bonds was at that time (2002) around 4,5%.
- A 6% discount rate was establish by the Portuguese Government (in 2002) to evaluate projects.

Where...

Discount Rate	NPV PPP
4,5%	7,98 Billion €
6%	6,65 Bilion €

Construction and Operational Costs:

- Capital Expenditure: 3 Billion €.
- Each 10 years we have add a 10% of Capex for reinvestments or major reparations.
- This values will be discount by the risk-free rate. (scenario 1: 4,5%; scenario 2 :6%).
- Operational cost by km/year: 65.000€ (benchmark: AE Transmontana project – 2007 data).
- That value was discount to 2003 at a 3% discount rate.
- Operational cost in 2003 of the 930 km: 50,6 Million €.

Corporate Taxes

Note: In this study, the 7 concessionaries were treated as a single entity for tax purpose.

Revenues: Payments from the State.

Operational costs: As defined previously.

Depreciations: 3 Billion € / concession number of years.

Interests: We have simulated the Project Finance, considering a 90% Debt and a 20-year maturity.

Transfer Risks

Construction risks: Low

Operational Risks: Low

Demand Risk: Very Low

THE SCUTS CASE - RESULTS

NPV PPP vs NPV PSC

	Rf= 4.5%		Rf= 6%	
	PSC	PPP	PSC	PPP
NPV of cost of public-sector procurement (including capital and operational expenditure)	3,688,988		3,519,071	
NPV of Service Fees - NPV of tax		7,984,506		6,649,114
NPV of risk adjustments	305,735		305,735	
NPV of additional tax	38,923		38,923	
Risk-Adjusted NPV cost	4,033,646	7,984,506	3,863,729	6,649,114

NPV sensitivity analysis, with a Rf = 4.5%

Operational costs	Capital expenditures									
	Case based	Δ with PPP	Δ = 10%	Δ with PPP	Δ = 20%	Δ with PPP	Δ = 50%	Δ with PPP	Δ = 100%	Δ with PPP
Base case	4 033 646	-3 950 861	4 347 481	-3 637 025	4 639 219	-3 345 287	5 514 431	-2 470 075	6 973 118	-1 011 388
Δ = 10%	4 113 017	-3 871 489	4 457 980	-3 526 526	4 772 404	-3 212 102	5 715 677	-2 268 829	7 287 798	-696 709
Δ = 20%	4 192 388	-3 792 118	4 545 289	-3 439 218	4 859 713	-3 124 793	5 802 985	-2 181 521	7 375 106	-609 400
Δ = 50%	4 430 502	-3 554 004	4 807 214	-3 177 293	5 121 638	-2 862 868	6 064 910	-1 919 596	7 637 031	-347 475
Δ = 100%	4 827 358	-3 157 148	5 243 756	-2 740 751	5 558 180	-2 426 327	6 501 452	-1 483 054	8 073 573	89 067

(in EUR thousands)

7 Main reasons why PPP have not succeed in Portugal:

- High levels of investment in a short period of time.
- Deficit on structure and management skills.
- Poor public management during the bidder process. PSC only after 2006
- PPP focus only as off-budget operation.
- Poor budget control of financial assumptions.
- Incorrect risk valuation and allocation.
- PPP renegotiations have increased the State payments

- The purpose of the study was to **apply the PSC in evaluating the VfM in PPP**.
- Several pre-conditions were established to an independent analysis.
- The analysis made to the **SCUT** projects reveals that this option, the way it was negotiated, **did not create VfM to the Public Sector**.
- Even with an **NPV sensitivity analysis**, most scenarios show a **negative VfM**.
- The main reason was the **risk transfer**.
- The competitive bidding process has failed due to:
 - Lack of experience from Public Sector in PPP schemes.
 - Lack of a PSC.

However...

- This study should **not be generalized** to all PPP in this conclusions.

- **Limitations of this study:**
 - Application of a methodology to a specific project.
 - The same methodology in other projects could lead to different conclusions.
 - This study do not consider the externalities related to the public investments (neither the *crowding out/crowding in* effect).

For that we believe...

- PPP are a fundamental instrument in replacing or creating new infrastructures, specially in countries with high levels of investment needs and fiscal constrains.
- We stand that there should be no prejudiced belief in PPP, and they should be looked upon without any ideological predisposition.
- This is equally valid for those who believe that using the private sector is a guarantee of better efficiency, and for those who do not believe in private sector virtues.
- Although international experience is not consensual, many PPP have created efficiency and VfM to the Public Sector.

- We believe that **PPP are a good solution.**
- However, this will only happen if the **efficiency earnings exceed the higher cost of finance** that the private sector brings due to higher interest rates
- This can be achieved by: reducing lifecycle costs, by using higher standards in construction, by more frequently handling maintenance and by investing in new technology, or simply by having better management and a simpler process.
- But only when the **public sector is capable of negotiating** with the private bidders

Further comments, suggestions and criticisms are welcome

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