Pricing regimes and financing of land passenger transport infrastructure and services in Portugal

PRICING REGIMES AND FINANCING OF LAND PASSENGER TRANSPORT INFRASTRUCTURE AND SERVICES IN PORTUGAL

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1. ABSTRACT

Building on the results of the research carried out in the REVENUE project (DG TREN 5th Framework Programme), this paper presents the core elements of the regulatory framework for the provision of surface passenger transport infrastructure and services in Portugal. Focussing on urban public transport and private road passenger transport, the paper discusses pricing principles and instruments, transport sector taxation and subsidisation mechanisms as well as forms of cooperation between the public and private sector that are currently being applied. In the case of urban public transport, the legal instruments that can be used by the State for the purpose of financial assistance to the public transport system are presented. Six instruments are discussed: public service compensations, subsidies for financial rebalance, capital increases, transfer of liabilities to the State, guarantees and capital stock financing. In the case of private passenger transport, particular attention is paid to the dynamics of the contractual relationship between the State and the concessionary of the two Tagus bridges (Lusoponte). More precisely, the seven changes in the concession contract (between 1995 and 2001), which had an impact on the level of public budget contribution, the duration of the contract and the definition of tariffs, are addressed. The paper concludes by pointing out possible policy developments in both regulatory frameworks in the near future.
2. INTRODUCTION

Transport pricing research funded by the EC has provided significant contributions to the shaping and formulation of EU transport policies. Transport pricing principles have been established and cost valuation methodologies have been tested, leading to basic policy recommendations which have come forth in the revision of the Common Transport Policy (2001) and in several EU Directives and proposals thereof (e.g. on rail – 2001, on HGVs – 2003). As part of this trial and error process, it became evident that the impact of pricing policies in terms of effectiveness, efficiency, equity and acceptability will greatly depend on the way in which the revenues generated by the transport pricing schemes will be used. The REVENUE project addressed the specific issue of revenue use from transport pricing, thus providing further input to the formulation and development of EU policies in the domain of transport infrastructure charging.

The REVENUE project, which has been concluded in 2006, had three main objectives:

- Assess current practice for transport revenue use;
- Develop guidelines for good use of the revenues from social marginal cost pricing;
- Examine both current practice and the use of the guidelines on a set of case studies.

In the context of the REVENUE project, transport charging and use of revenue are examined together as two parts of a so called “regulation scheme”, which consisted of a specific combination of pricing, revenue use and investment rules (see Proost S. et al., 2004). The fundamental elements of that regulation scheme are schematically depicted in the following picture.

![Figure 1 – Elements of the REVENUE regulation scheme. Source: S. Suter et al, 2003](image)
Building on the results of the research carried out in the REVENUE project, we will discuss some core elements of the regulatory framework for the provision of land passenger transport infrastructure and services in Portugal, focussing on the urban public transport and private road passenger transport markets.

3. LAND TRANSPORT REGULATORY BODIES

In Portugal, major regulatory responsibilities in the domain of the land transport market are scattered among several government departments and bodies, mostly under the coordination of the Ministry of Transport. The main regulatory bodies are:

- General Directorate of Land Transport and Inland Waterways: Responsible for the management of the public transport market, including licensing of operators and granting and monitoring of public transport concessions. Moreover, it also monitors the application of the rules on access to the market of road freight transport;

- Portuguese Roads (EP): This State-owned company represents the Ministry of Transports in the negotiation and enforcement of road concession agreements (which concessionaires were formed by Public Private Partnerships - PPP). These functions are only exerted in relation to the National Road plan (defining the fundamental and complementary national road network) as defined in the Law Decree nº 222/98, since local roads are under the responsibility of the municipalities. Thus, municipalities are responsible for investment and maintenance in road infrastructures not falling under the National Road Plan. Appeals to EP’s decisions that might arise during the concession contract period are dealt with by courts (mainly concerning renegotiation processes resulting both from EP and concessionaire claims, the latter mostly related with financial equilibrium of the contract).

- Parpública: This State-owned company, which has the main function of managing the Portuguese State shareholdings, represents the Ministry of Finances in all phases of PPP projects in the road sector.

- National Rail Regulator (INTF): Holds the statutory duties of railway market monitoring and promotion as well as the enforcement of competition laws within the railway sector. The INTF proposes the adoption of rules concerning public services in the rail sector, monitors the granting and management of public service contracts and assists the Government in public service. Since 2004, the INTF is also responsible for the regulation of the Lisbon Underground;

- Metropolitan Transport Authorities of Lisbon and Oporto: The statutory duties of these bodies, which were established in 2004, comprise the integrated planning, coordination, and development of the transport system within the metropolitan areas of Lisbon and Oporto. After the 2004 elections, the process of operational implementation of these
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authorities has been halted for political reasons, despite the previous enactment of these bodies.

The Ministries of Regional Planning and Finance have also been involved in decisions with relevant impact on the functioning of the land transport markets. For instance, in 1998 the basis for a road concession agreement was issued by the former (see Law Decree n. 393-A/98) while the latter has a track record of intervention in decisions related with the level and structure of road infrastructure charges and public transport fares. Decisions with relevant impact on the national budget, such as ad-hoc allocations of financial compensations related with public service obligations, are issued at the level of the Council of Ministries (see for instance, Council of Ministries Resolution n. 174/2005).

4. PRICING AND SUBSIDISATION IN PUBLIC TRANSPORT

4.1 Fare setting in public transport

State intervention in the domain of public transport fares is a long-standing practice in Portugal. A landmark legal provision in relation to the administrative setting of urban and interurban public transport fares was issued in 1993\(^4\). According to that law, administrative price setting applies to:

- Scheduled public transport under 50 km, by bus and rail as well as high-density river transport, provided by State-owned operators,
- Combined transport fares, i.e. those that relates to services provided at least by two different operators (State-owned and/or private operators)\(^5\).

In the specific case of the railway service linking the South and North banks of the Tagus river in Lisbon, which is operated by Fertagus under a 30-year Public Private Partnership contract (signed in 1999), the fare regime is stipulated in the contract itself.

In the period 1985-2004, fares were normally revised without paying too much attention to the costs incurred in the production of the services. Consequently, prices were indexed to the evolution of annual inflation values. A noticeable change to this procedure occurred in October 2004. Taking notice of the steady increase in fuel prices, the government decided to start adjusting urban and interurban public transport fares to the evolution of that cost factor\(^6\). According to a 2005 law\(^7\), the calculation of fare adjustments should be based on the following formulas

\[
\Delta T_n = A \Delta PMC_{n-1}
\]

\[
\Delta PMC_{n-1} = \frac{PMC_{n-1} - PMC_{n-2}}{PMC_{n-2}}
\]

where

\(\Delta T_n\) = Variation of fares in the trimester \(n\);

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A = Constant that reflects the relation between operator revenue and the relative weight of the cost of fuel in the operators’ costs structures. It is currently assumed that this value is 0.38.

\[ PMC_n = \text{Simple average of reference diesel prices, according to the Portuguese General Directorate of Energy, in the trimester } n. \]

The last price revision\(^9\), issued in June 2006 and in force since July 2006, allows for a maximum average fare increase of 2.65%.

The following picture compares the evolution of the regulated fares against the evolution of the annual inflation in the period 1985-2005.

![Graph showing the comparison of public transport prices and inflation rates](image_url)

**Figure 2 – Evolution of public transport prices versus annual inflation in the period 1985/2005**


Under price-cap regulation the operator is allowed to increase the prices at a specified rate for a specified period of time. The figure above shows how the evolution of the tariff levels has been generally closely following the evolution of the inflation rate. Therefore, the regulatory framework in force has typical characteristics of a price-cap regime. In the specific case under analysis it means that:

- Until 2005 prices were not adjusted to reflect actual operating costs or profits. From 2005 on, prices have been partially indexed to the evolution of costs (fuel costs) in order to face the strong rise of fuel prices (fuel prices are rising at faster pace than the rate of inflation);
- Private operators are free to set prices for non-combined transport services. Thus, these operators are free to control prices within the...
basket of services provided (cross-subsidisation between regulated and non-regulated services);  
- The regulator has significant discretion over future policy.

Since prices are not fully linked to operating costs, the operators can have strong incentives to reduce operating costs in order to maximize operational results. However, since the current regulatory framework does not consider any kind of explicit quality performance target, the operators are free to adjust the quality level of their services. Taking into account that both public and private operators co-exist in the same system, and assuming that the “profit pressure” is higher for the private operators, it resulted evident that an adequate regulatory policy (for instance aiming at maximizing cost efficiency and targeting a given quality threshold) must go beyond the simple framework in force.

The development of common standards for the provision of comparable information could be a good starting point towards the design of a better regulatory policy. Since the reporting requirements for operators are not specified in detail (financial data, production data, demand data, etc) it is likely that the regulator has a poor knowledge of both cost and demand functions in urban public transport. Better information could allow for a better specification of incentives in such a complex environment.

### 4.2 Subsidisation of public transport operations

In broad terms, it can be argued that the ultimate purpose of financial State intervention is to make a particular service or product available at an affordable price, whenever the service or product cannot otherwise be profitably supplied at similar price (Link et al, 2000). According to the Portuguese law, direct financial intervention of the State in the activity of transport operators can be materialised by different means, which are presented in the following Table.

<table>
<thead>
<tr>
<th>Instruments of intervention</th>
<th>Justification</th>
<th>Financial Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensatory payments</td>
<td>Financial compensations for the imposition of public service obligations by the State</td>
<td>Public budget</td>
</tr>
<tr>
<td>Subsidies</td>
<td>Financial rebalancing of companies</td>
<td>Public Debt Regularisation Fund (PDRF)</td>
</tr>
<tr>
<td>Capital Endowments</td>
<td>State participation in specific investments; Financial restructuring of State-owned companies.</td>
<td>Several sources including PDRF, public budget, etc</td>
</tr>
</tbody>
</table>
### Table 1 - Instruments for financial State intervention

<table>
<thead>
<tr>
<th>Assumption of liabilities and regularisation of responsibilities</th>
<th>Financial restructuring</th>
<th>Public budget (through the emission of public debt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guarantees</td>
<td>Guarantees for company loans</td>
<td>Non-fulfilment to be covered by the public budget</td>
</tr>
<tr>
<td>PIDDAC – Program of investments and development expenses of the Central Administration</td>
<td>Co-financing for new investments or upgrading of infrastructure</td>
<td>Public budget and/or EC funds</td>
</tr>
</tbody>
</table>

Source: Portuguese Court of Auditors, 2004

As the Table shows, the instruments of intervention may assume diverse designations according to the objectives to be pursued. For instance, the financial equilibrium of public transport operations has been highly dependent on compensatory payments due to the generalised chronic operational deficits in the sector. However, the financial sustainability of the system has been highly instable due to the lack of clear rules for the allocation of these subsidies, which were often defined at posteriori, hindering the planning capacity of public transport managers, for public capital companies. In addition private companies were not included in the compensatory mechanism creating a biased and consequently unfair system. In this regulatory context it is not surprising that in 2004 the combined transit pass system in the Lisbon area, whose prices are under administrative control, was at serious risk of collapse following financial claims from private operators. The interurban transport, in turn, managed to survive without subsidies, despite being also under price control limitation for the yearly increase of fares.

### 5. ROAD INFRASTRUCTURE FINANCING

Presently, Portuguese motorways and most high-capacity roads are being financed under PPP agreements, involving real tolls and shadow toll regimes\(^\text{10}\). The need for steady development of high quality infrastructure under severe budgetary constraints is a major factor for this trend. Other roads in the National Road Plan\(^\text{11}\) are directly financed through the public budget, more precisely through PIDDAC (Program of Investments and Development Expenses of the Central Administration). The municipalities are responsible for the investments, maintenance and upgrading of the roads not included in the National Road Plan. An overview on the set of taxes imposed on road transport users, infrastructure charging and main features of the institutional framework for Public Private Partnerships (PPP) road contracts, is given below.
5.1 Taxation in the Portuguese road transport sector

According to Link et al (2000), a tax is a levy that must be paid with no tangible counterpart to be expected from the State (a specific service or good) or that just corresponds to a service or good that is not in proportion to the payments. The definition that can be found in the Portuguese public budget framework law is fully in line with that rationale, stating that the revenues accruing from the taxes are aimed at financing the general objectives of the State. The law reinforces the lack of connection between the payment of a tax and the provision of a specific service. However, although non-earmarking of tax revenues is a core principle of the Portuguese public budget framework, exceptions to this general rule are allowed.

A significant part of the research on the economics of transport pricing, carried out in the EU lately, indicates that the most efficient use of revenue requires that governments are free to use the revenue in whatever way provides the greatest social benefit. By contrast, research on acceptability prescribes that earmarking this income for specific uses (usually within the transport sector) would make pricing reform more acceptable, as those paying the charges would know how the income was going to be used, and how it would benefit them (Laird et al, 2004). In the case of the set of taxes levied on road transport users, there are currently no exceptions to the non-earmarking general rule, implying that neither specific beneficiaries nor purpose of the tax revenues are specified.

The following Table presents a non-exhaustive list of the taxes imposed exclusively on road transport users in Portugal.

<table>
<thead>
<tr>
<th>TAX</th>
<th>RECIPIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Tax on Vehicles (light passenger vehicles or mixed-use vehicles). Law-Decree nr. 143/78 of 12 June.</td>
<td>Municipalities</td>
</tr>
<tr>
<td>Circulation tax (levied on vehicles used or rented out on a self-drive basis for the carriage of goods for one’s own use). Law-Decree nr. 116/94 of 03 May.</td>
<td>Central budget (formerly earmarked to the Portuguese Roads company)</td>
</tr>
<tr>
<td>Road haulage tax (on light and heavy goods vehicles used in professional transport) Law-Decree nr. 116/94 of 03 May.</td>
<td>Central budget (formerly earmarked to the Portuguese Roads company)</td>
</tr>
<tr>
<td>Motor vehicle tax (on new/imported vehicles) Law-decree nr. 40/93 of 18 February. In general, it is changed every year according to the State Budget.</td>
<td>Central budget</td>
</tr>
</tbody>
</table>
Value added tax (on vehicle sales, tolls, public transport, fuel, etc) | Central budget
---|---
Fuel Tax | Central budget
Parking tax | Municipalities

**Table 2 – Taxes imposed on road transport users**

The Table shows that the revenues related with three of the taxes are allocated to the municipalities, which have discretionary power on how it should be spent.

### 5.2 Legal framework for road PPPs

The law determining the general rules for PPPs, which is valid not only for the road sector but for other sectors as well, was published in 2003 (Law-Decree nr. 86/2003 of April 26th). This legal provision specifies the different phases of a PPP project and the role of public bodies under the Ministry of Finance and Ministry of Transport. No permanent body is in charge of managing road sector PPP processes up to the signature of the contract. Instead, the members of specific Steering Committees are appointed each time a PPP project is launched. The framework law also states the general principles for risk-sharing between the parties and orders the use of a public sector comparator for the assessment of the value for money of PPP alternatives. So far, this tool has not yet been developed and is therefore not being applied. Still in 2003, a decision of the Ministry of Finances set the inflation and discount rates to be used in the economic studies supporting the start-up of PPPs. In practice, the decision to set up a road sector PPP and the respective evaluation of the bids is mostly grounded on financial and legal factors, without a detailed analysis of efficiency and distributional impacts.

### 5.3 Road infrastructure charging

Road tolls regime follows a common structure which is based on four vehicle categories. These categories are defined as a function of the number of axles and the height of vehicle measured from the first axle. Class 1 includes motorcycles and vehicles with a height, measured from the front axle, less than 1.1 metres, with or without trailer. Class 2 includes vehicles with two axles and with a height, measured from the front axle, equal or higher than 1.1 metres. Class 3 includes vehicles with three axles and with a height, measured from the front axle, equal or higher than 1.1 metres. Class 4 includes vehicles with more than three axles and with a height, measured from the front axle, equal or higher than 1.1 metres. Special toll discounts or exemptions are also allowed in some routes. For instance, in the 25th of April bridge case there is a system of discounts for frequent users as well as a toll payment exemption in August given the summer season and access to beaches made through this bridge.
6. THE VASCO DA GAMA BRIDGE PPP – PITFALLS OF A PIONEERING PROJECT

The studies for the capacity increase of the “25th of April” bridge and the construction of a new bridge across the Tagus river, both in the Lisbon region, were carried out in the early 90’s. In 1991 the first governmental initiative for the co-ordination of the promotion and development of the Tagus bridges— the GATTEL (“Cabinet for the Tagus River crossing”)— was established. The following table presents the milestones of the project up to the signature of the concession contract.

<table>
<thead>
<tr>
<th>Event</th>
<th>Legal Base</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup of the working/study group</td>
<td>Decision of the Council of Ministers</td>
<td>25-01-1990</td>
</tr>
<tr>
<td>Definition of the main aspects of the international tender</td>
<td>Decree-Law nr. 220/92</td>
<td>15-10-1992</td>
</tr>
<tr>
<td>Approval of the pre-qualification phase of the international tender</td>
<td>Decree nr. 980-A/92</td>
<td>15-10-1992</td>
</tr>
<tr>
<td>Approval of the second phase of the tender aiming at selection of the final bidder (from the two shortlisted bidders)</td>
<td>Decree nr. 366-A/93</td>
<td>31-03-1993</td>
</tr>
<tr>
<td>Changes to the Decree-Law nr. 14-A/91 establishing GATTEL</td>
<td>Decree-Law nr. 76/94</td>
<td>07-03-1994</td>
</tr>
<tr>
<td>Decision on the selection of Lusoponte for the operation of the new and existing bridges</td>
<td>Joint order of the Ministry of Finance and Ministry of Transport</td>
<td>26-05-1994</td>
</tr>
<tr>
<td>Approval of the concession and granting of the concession rights to Lusoponte on the basis of two contracts, namely the Interim Agreement and the 2nd Concession Agreement</td>
<td>Decree-Law nr. 168/94</td>
<td>15-06-1994</td>
</tr>
<tr>
<td>Approval of the terms of the Interim Agreement</td>
<td>Resolution of the Council of Ministers nº 13/94</td>
<td>17-06-1994</td>
</tr>
<tr>
<td>Approval of the terms of the 2nd Concession Agreement</td>
<td>Council of Ministers Resolution n.º 121-A/93</td>
<td>15-12-1994</td>
</tr>
<tr>
<td>Signing of the 2nd Concession Agreement</td>
<td>-</td>
<td>24-03-1995</td>
</tr>
</tbody>
</table>

Table 3 – Milestones of the Vasco da Gama PPP until the signature of the contract

Source – Portuguese Court of Auditors, 2000
The process that led to the signature of the concession contract, including the development of all technical studies, has been concluded in 5 years. The general obligations of the concessionaire include the following aspects:

- Design, build, financing, operation and maintenance of the Vasco da Gama bridge;
- Operation and maintenance of the 25th of April bridge (road section only);
- Both crossings have a real toll regime (no shadow tolls);
- Exclusive rights to all road-crossings downstream of the town of Vila da Franca de Xira (i.e. the Marechal Carmona bridge);
- The concessionaire can not reduce its capital without previous agreement of the State;
- Every year, the concessionaire shall provide a audited account report, the annual report, the profit and loss account, and the balance sheet;
- The concessionaire shall provide traffic statistics every semester.

Several public and private entities have been involved in the project finance design. The financial structure involved the participation of the following entities:

- Cohesion Fund - €319 million (35% of the total);
- European Investment Bank loan - €299 million (33% of the total);
- 25th of April bridge toll revenues - €50 million (6% of the total);
- Other sources (shareholders, Portuguese State grants, etc) - €229 million (26% of the total).

The “Base Case Financial Model” of the Lusoponte concession comprises the following fourteen sections:

- Macroeconomic variables (inflation, interest rate);
- Traffic forecast for the concession period;
- Toll revenues resulting from the forecasted traffic;
- Capital costs and funds required during the construction period;
- Operating and maintenance costs;
- Funding schedules;
- Fixed assets and depreciation;
- Cohesion fund contributions and State grants;
- Profit and loss statements;
- Value Added Tax flows;
- Taxes;
- Sources & Uses Funds;
- Concession cash flows;
- Balance sheets.

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Although the Portuguese State was able to secure the funding required for the development of the project, the process was far from smooth. Several pitfalls triggered rounds of complex re-negotiations that resulted in seven changes to the initial contract, between 1995 and 2001. The evolution of the contract model can be divided into three distinct phases, corresponding to three risk-sharing models and respective financial implications. These three phases correspond to the:

- Initial model;
- The six financial re-equilibrium agreements;
- The global agreement.

These three phases will be discussed below.

6.1 The Initial model

The initial model was based on a variable concession period. The duration of the concession was linked to 2.250 million vehicle passages on the two bridges. The model involved a same set of toll values for the two bridges and the participation of the concessionaire in the coverage of the maintenance expenses of the old bridge. No special VAT or income tax regimes were to be applied to the revenues collected at the 25th of April bridge. The risks of the State were limited to those cases in which the concessionaire would be entitled to claim for financial compensations in order to restore the financial balance of the concession, such as:

- Unilateral modifications required by the State;
- Force majeure;
- Serious disturbances in the foreign exchange market;
- Legal changes of specific character (not including modifications of the taxation regimes);
- Delays in the payment of European Union grants;
- Delays in land expropriation;
6.2 The six financial re-equilibrium agreements

The strong protest that followed the announcement of the toll increase on the old bridge, including a roadblock by hauliers and population in June 1994, was one of the main reasons for the six re-equilibrium agreements. In order to cope with the protest, the government decided to impose different toll levels on the two bridges. It was decided to increase the old bridge tolls only when other transport alternatives would be available, namely the rail crossing on the 25th of April bridge and new river ferries. Thus, the State’s financial compensations aimed at covering the loss of revenues resulting from the following factors:

6.3 Not rising the old bridge tolls;
6.4 Exempting the users from the payment of tolls on the old bridge in August and introduction of a system of toll discounts for the same users;
6.5 Variation in loan interest rates
6.6 The increase in the global risk of the project.

The changes to the original model formally occurred with the signature of the first Financial Contract in March 1995 (in the same occasion of the signature of the concession agreement). Taxation compensation mechanisms were also introduced. These consisted of decreasing the VAT on toll revenues collected in the old bridge from 17% to 5% and a more advantageous regime for the old bridge toll revenues collected during the construction of the new Vasco da Gama bridge. The changes have not involved any clawback mechanism for the State.

6.3 The global agreement

The Global agreement followed the same political orientations that guided the previous six financial rebalance agreements. Moreover, it included a clause releasing the concessionaire from the contractual obligation of sharing the maintenance expenses of the old bridge. The new model also reflected:

- New financing conditions (including a refinancing operation) which had caused an increase in interests;
- Introduction of a cap for the income tax to be paid by the concessionaire;
- A fixed concession duration of 35 years (previously duration had been indexed to traffic volume). According to the Portuguese Court of Auditors (2001), this change entailed an extension of the concession contract between 7 to 11 years. Note that in the previous model the
target traffic volume (2 250 million vehicles) was estimated to be reached between 2019 and 2023 whereas the new model stated that the concession would end by 2030;

The following Table presents the evolution of some core contractual parameters throughout the described renegotiation process.

<table>
<thead>
<tr>
<th>Core Parameters</th>
<th>Initial model</th>
<th>Financial rebalance agreements</th>
<th>Global Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tolls</strong></td>
<td>&quot;Two bridges, one price&quot; principle</td>
<td>&quot;Frozen prices&quot; principle in the 25th of April bridge</td>
<td>&quot;Two bridges, different prices&quot; principle</td>
</tr>
<tr>
<td><strong>Discounts and exemptions (tolls)</strong></td>
<td>No toll discounts or exemptions on the two bridges</td>
<td>Introduction of discounts and exemption of payments in August on the 25th of April bridge</td>
<td>Consolidation of discounts and exemption of payments in August on the 25th of April bridge</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Exemption of retention in the source for the income tax on the interest of foreign banks</td>
<td>Special tax regime for the 25\textsuperscript{th} of April bridge revenues during the construction of the new bridge</td>
<td>Reduction of VAT (17% to 5%) for the operating revenues</td>
</tr>
<tr>
<td><strong>State contribution (accumulated)</strong></td>
<td>€ 99 759 579</td>
<td>€ 162 308 836</td>
<td>€ 305 763 111</td>
</tr>
<tr>
<td><strong>Duration of the concession</strong></td>
<td>Linked to a fixed traffic volume – 2 250 million vehicles between 2019 and 2023</td>
<td>Linked to a fixed traffic volume – 2 250 million vehicles between 2019 and 2023</td>
<td>35 years (until 2030)</td>
</tr>
<tr>
<td><strong>State risks</strong></td>
<td>Maintenance of the 25th of April bridge</td>
<td>Shared between the State and Lusoponte</td>
<td>Shared between the State and Lusoponte</td>
</tr>
<tr>
<td></td>
<td>Interest rate</td>
<td>Lusoponte</td>
<td>State and Lusoponte</td>
</tr>
<tr>
<td></td>
<td>Re-financing risk</td>
<td>Lusoponte</td>
<td>State and Lusoponte</td>
</tr>
<tr>
<td></td>
<td>Contract termination</td>
<td>State responsible for bank loans</td>
<td>State responsible for bank loans + shareholder equity</td>
</tr>
<tr>
<td><strong>State Clawback</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Table 4 – Contract evolution overview*

*Source: Portuguese court of auditors, 2001*
According to a 2005 report of the Portuguese Court of Auditors, the public funds (Portuguese State and European Union) that were spent on the concession from 1995 up to the end of the contract amount to 749.8 million Euros. Of this amount, 408 million Euros were direct compensations due to financial re-equilibrium agreements\textsuperscript{16}.

7. CONCLUDING REMARKS

In the case of Lisbon, the urban public transport regulatory framework has the typical characteristics of a price-cap regime. Since prices are not fully linked to operating costs (up to 2005 prices have not been adjusted to reflect actual costs or profits, although prices are now being partially indexed to the evolution of fuel costs) the operators can have strong incentives to reduce operating costs, in order to maximize operational results. However, the current regulatory framework does not consider any kind of explicit quality performance target and therefore operators are free to adjust the quality level of their services as they please or, better saying, as a consequence of the price cap limitation without an effective performance control. Taking into account that both public and private operators co-exist in the same system, and assuming that the "profit pressure" is higher for the private operators, then the design of "good" regulatory policy (for instance aiming at maximizing cost efficiency and targeting a given quality threshold) must go beyond the simple framework currently in force. It is also crucial that the State defines transparent rules for the calculation of the financial compensations of transport services carried out under a public service obligation regime, independent from the capital ownership of the service provider. The good performance of public transport is closely dependent on the improvement of the regulatory framework that can be achieved by the rules herewith proposed.

Regarding road sector PPPs, the experience showed that careful assessment of risks is crucial to avoid misuse of public money. In addition, the uncertainty associated with risk foresight revealed the advantage of keeping incomplete instead of complete contract used which are characterized by rigidity and low level of trust between partners associated with high anxiety from the state regarding any potential clawback. Besides, the experience with the Lusoponte concession reveals that a sound acceptability analysis (at least for some projects) would probably have pointed out the high political risks associated with a significant toll increase. On the other hand, the assessment of the value for money, i.e. the comparison between the PPP and conventional procurement alternatives, is also required for a well-founded decision and to guarantee a good use of public money. It should be stressed that even though the use of this tool is required under the Portuguese legal framework, it is actually not yet being applied. A more efficient pricing scheme could also be implemented through a more sophisticated toll differentiation (for instance, considering, the time, period, location or distance traveled) although practical implementation still imposes some technical difficulties. In this respect, an interesting development is the new European road charging initiative, which

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represents the first step towards taking account of external costs, allowing for a greater variation in tolls to reflect congestion and pollution caused by vehicles (which will be mandatory from 2010).
NOTES

1 Funded by European Commission under the Fifth RTD Framework Programme.
2 The fundamental network comprises the roads connecting capital of districts and centres of subdistrict influence to ports, airports and country borders. These roads are classified as Main Itineraries. The complementary road network comprises the roads connecting centres of medium influence within districts. These roads are classified as Complementary Itineraries.
4 Law-Decree nr. 8/93, of 11 January.
5 In other words, the rules do not apply to non-combined transport tickets (mostly time-based passes) provided by private operators. Maximum reference prices for interurban road passenger transport are also regulated.
7 See Despacho Normativo nr. 45-B/2005 of 11 October.
8 As of April 2006.
9 As of the date of conclusion of this paper – 8 August 2006.
10 The other roads included in the National Road Plan (see Law-Decree nr. 222/98) are directly financed through the public budget (more precisely through the PIDDAC – Program of Investments and Development Expenses of the Central Administration). The municipalities are responsible for the investments, maintenance and upgrading of roads not included in the National Road Plan.
11 See Law-Decree nr. 222/98.
12 See Law-Decree nr. 26/2002.
13 This section heavily relies on the contents of Portuguese Court of Auditors report “Audit to the global agreement between the State and Lusoponte”, released in November 2001.
16 Disaggregated data on annual public expenses that have resulted from all negotiations between the State and Lusoponte can be found in Annex 1.
### ANNEX 1

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<th>Year</th>
<th>European Union grants</th>
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Table 5 – Public expenses in the Lusoponte PPP from 1995 to 2030

Source: Portuguese Court of Auditors, 2005.
BIBLIOGRAPHY


