RISK MANAGEMENT CLAUSES IN TENDER CONTRACTS FOR PASSENGER TRANSPORT OPERATIONS: THE CASE OF MANAUS, BRAZIL

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INTRODUCTION

Brazil urban bus services are basically contracted to private operators by means of administrative contracts in a context of Code Law. By this system, the Administration is free to alter or even to suspend contracts unilaterally, provided there is a justified public interest for doing so, and that the "economic equilibrium" of the contract is preserved. Having its origin in the need to give to the contracted party some least protection mainly against the government risks, the principle of the preservation of the economic equilibrium has been abusively extended in Brazil, freeing actually the operators from different economic risks occurring in the administrative contracts, even from these which the operators are expected to be in charge of, accordingly to any rational risk allocation criterion (e.g. cost variations of the inputs).

The automatic link between a cost table (cost plus regulation) and the fare prices has provoked a continuous adjustment of these widely above the inflation rates (Fig. 1), harming severely the poorest passengers, but also the employing industry, which is obliged by Law to acquire from the operators tickets for the work trips of the staff (vale-transporte).

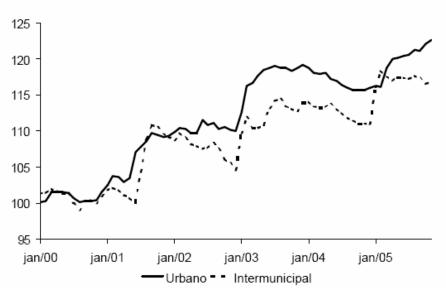


Figure 1: Evolution of the fare prices in urban bus and interurban coach transportation above the inflation rate

Source: Ministério da Fazenda 2006

This paper reports on a proposal for regulatory reform in the bus system in Manaus, the capital city of the Amazon State, where a tendering procedure is being prepared. The draft contract has introduced risk clauses, transferring to the operators the responsibility for risk events whose management is more properly considered to be in their competence field, whereby the Administration assumes the events more directly linked to government action (modification of the services, introduction of fare concessions, adverse modification of Tax Law, and the like).

The paper starts from general theoretical foundations of risk management and their application in transit operation and explains the new structure of risk clauses to be included into the operation contract, which shall substitute the current simple but economically inefficient cost-plus regulation. The conclusion discusses the legal feasibility of this change in the current Brazilian legal context.

RISK MANAGEMENT IN ADMINISTRATIVE CONTRACTS: SOME PRINCIPLES

The Brazilian Administrative Law is affiliated to the French Code Law system, which has adopted the administrative contract doctrine for regulating several infrastructure services. Following this doctrine, a set of these services are considered to be "public services" in the sense that the Public Administration remains their titular, but is allowed to "delegate" its execution to third parties (i.e. to public or private companies) by means of an administrative contract. This kind of contract entitles the Public Administration to alter or even to suspend it unilaterally if the public interest demands so, provided that the Administration respects the economic equilibrium of the contract. The notion of the economic equilibrium of the administrative contracts has been introduced along the legal experience mainly in order to preserve justice in the relationship between public contracting and private contracted parties and may be considered as a basic risk management rule for risks derived by administrative and political action. In principle, this economic equilibrium rule is not to be understood as freeing the contracted party from any cost and demand risk, especially from those arisen by factors which are independent of the administrative action (e.g. costs of production inputs and patronage).

However, some cost-plus regulation practice, as that used in Brazilian infrastructure contracts, has extended the notion of economic equilibrium — which in the sequence has been often and erroneously called economic-financial equilibrium) — in order to shift the input cost risks to the Administration or to the paying user1. Especially the adoption of cost tables for the calculation of toll or fare prices has given the impression that any shift in the input costs should imply a corresponding adjustment in the price. Thus instead of representing a just protection of the contracted party against administrative risk the notion of equilibrium has acquired a more parametric nature.

This automatic shift runs against a main risk management rule, thereafter the responsibility for the different risks is respectively allocated to those party which has better conditions to lead with them, that is, to the party that controls the information on the respective causing events and that is better fit to manage the consequences (Department of the Environment and Local Government 2000, Office of Government Commerce 2001, Partnerships Victoria 2001). The automatic shift of input cost risks in administrative contracts to the user or to the Public Administration (that is, to the tax payer) means that these last parties are made responsible for risks with respect of which they have less information and management capacity than the contracted party. In contrast, as the contracted party is more able to negotiate better input prices, it will explore the arising information asymmetry against the user and/or the tax payer. In result, this will produce inefficiency in risk allocation, and regulation in general. The fare prices increases above the general price index evidence this regulatory failure.

The change proposed in this contribution starts from the principle that just and efficient risk allocation rules are to be introduced in the administrative contracts in substitution of the automatic and intellectually lazy understanding of the cost-plus regulation. For ruling price adjustments more precise risk clauses shall take the place of the fixed cost parameters. And a general statement, which is necessary in the Code Law system, shall rule that the principle of economic equilibrium is to be considered as satisfied when the contracting fully comply with the contract clauses, especially with the risk management clauses.

This said, how is modern risk management practice to be introduced into the infrastructure contract, in casu in land passenger transport operation contracts? Discussing in the first place the concept of risk, different definitions are delivered by the literature. As the Irish Department of the Environment and Local Government (2000) puts it, a "risk can be defined as any factor, event or influence that threatens the successful completion and operation of a project in terms of cost, time or quality". By this definition, risk gains a clear negative connotation as it is regarded as a threat.

Differently, Partnerships Victoria (2001) claims that risk "is the chance of an event occurring which would cause actual project circumstances to differ from those assumed when forecasting project benefit and costs". That is, this difference may be negative or positive, which is a definition near to the notion used by Office of Government Commerce (2001), there after risk "can be defined as uncertainty of outcome (whether positive opportunity or negative threat)".

The positive connotation of risk is common in financial markets, where investors are after special rewards for assuming risks (the so-called risk premiums). But in infrastructure contracts, the contracted party is expected to prefer swift and foreseeable contract terms, and

¹ It is worth of a note that by the original French Administrative Law, this shift of risk responsibility is *not* automatically foreseen, and that the transference of change in cost to the fare and toll prices is decided case by case (Vasconcelos 2004).

the respective risk terminology shall express the notion of threat to the stability of rules. Assuming this understanding, risk management is to be defined as the "process of identifying the significant risks to a project, devising tactics to reduce exposure to these risks, and then monitoring the effectiveness of risk management actions undertaken (Department of the Environment and Local Government, ibid.). Risk management is organized in a sequence of providences which is commonly referred to as "risk management cycle", which comprehends the following steps (Department of the Environment and Local Government 2000):

- Risks identification and systematization: here, the different possible risks are listed accordingly to the experience and systemized in categories;
- *Risk allocation*: the different risks are analyzed with respect of the abilities of the parties to cope with tem and then accordingly allocated either to the contracting authority, to the contractor or established as risks to be shared by both of them;
- *Risk assessment and evaluation*: Each risk is assessed with respect to the frequency of its occurrence, the severity of its impact and in consequence of its significance. Risks are to be considered significant either if they are frequent or if they provoke medium till severe impacts. The risks regarded as significant are be evaluated in monetary terms, and the remaining are considered to be tolerated;
- *Risk mitigation*: the measures to be taken by the responsible party are defined and a Risk Management Plan is prepared. In general, the measures aim to reduce both the likelihood of the risk occurring and the degree of its consequences for the risk-taker.
- *Risk monitoring and review*: once the contract turned effective, the parties comply with their respective duties foreseen in the risk clauses of the contract and the Risk Management Plan, but also monitor and review both the already identified and new risks which arise during contract life.

The literature delivers lists and lists of typical risks in infrastructure contracts. In fact, their identification requires a comprehensive work, where specialists are contracted. Different risk categories may be set up accordingly to the contract phase they appear, to their causes, the kind of impact, and other systematization criteria. For instance, Victoria Partnerships (ibid.) prefers to list the following categories:

- site risk;
- design, construction and commissioning risk;
- sponsor and financial risk;
- operating risk;
- market risk;
- network and interface risk;
- industrial relations risk;
- legislative and government policy risk;
- force majeure risk; and
- asset ownership risk.

Finally, the basic allocation criteria rules that "the party in the greatest position of control with respect to a particular risk has the best opportunity to reduce the likelihood of the risk eventuating and to control the consequences of the risk if it materialises. Allocating the risk in line with those opportunities creates an incentive for the controlling party to use its influence to prevent or mitigate the risk and to use its capacity to do so in the overall interests of the project (Partnerships Victoria ibid.).

RISK MANAGEMENT IN LAND PASSENGER TRANSPORT OPERATION CONTRACTS

In the case of land passenger transport operation contracts, following risk categories have been established by a contracted research project with the aim of redesigning the network, rebuilding the public management and preparing the draft contracts and tendering procedures in Manaus, the capital city of the Brazilian State of Amazonas (CEFTRU 2006):

- network design risks: these refer to the failures in network design, in the design of the tendered network slices and in prior patronage assessment;
- contract design risks: these refer to the failures in the design of contract clauses;
- tendering procedure risks: these refer to the failures of the definition of rules and in the execution of the tendering procedures;
- internal corporation risks of the operators: these refer to the internal management problems of the operators;
- financial risks: there refer to the investment risks (debt & equity) for the acquisition of the assets which are necessary for the execution of the contract;
- operational risks: these refer to the operational costs;
- market risks: these refer to the fluctuation of demand and patronage;
- interface risks with other public transport systems: these refer to the mismatch in the integration between the operators of the bus system and of the other public transport modalities (e.g. water transport on the Amazonas and Rio Negro rivers. intercity coach transport, etc.);
- labour risks;
- regulatory change and legislative risks: these refer to changes in the governmental decrees and legal statutes which have direct or indirectly impact on the economy of the bus operation contracts (e.g. statutes with respect to concessionary fares, vehicle and staff regulation, taxation, and the like);
- risks of governmental actions: these refer to the modifications imposed by the contracting authority (e.g. routes, frequencies, fare prices, etc.);
- property and residual value risks: these refer to the dispute on property status of the assets and on the respective residual values at the end of the contract; and
- force majeure risks (Acts of God).

Subsequently, these risks categories were analyzed with respect to the ability of the contracting authority and the operators to deal with them, and three allocation categories were established: risks to be allocated to the operators (eventually to their insurers), risks to be allocated to the contracting Administration, and risks to be shared between both of the parties. In the following section, the respective contract clauses are discussed.

RISK CLAUSES IN THE OPERATION CONTRACTS: THE CASE OF MANAUS, STATE OF AMAZONAS

The case of Manaus

The starting point of the project was a request by the Municipal Government to the University of Brasília to draw up a tendering procedure for the local bus system, as the Government was pressed by the State Prosecutor to organize this procedure, once the current permissions period have expired for years without any measure to start the mandatory procurement. The contracted staff was faced with a situation that is becoming too common in Brazil: a) an irrational line network, resulting from an uncontrolled number of extensions imposed by social movements, politicians and the operating companies themselves; b) a fragile authority that needs to be restructured and retrained; c) the presence of informal transport, whose operations the Authorities had succeeded recently to restrict to some peripheral districts; d) pressure by the bus operators to rise the fare prices and repress firmly the informal transport. The operators expected the network to be redesigned into radial "basins", each one explored monopolistically by a unique operator.

The staff soon perceived that the design of the tendering procedure and draft contracts had to be preceded by a deep reorganization of the whole network into a structure composed by a set of competitive corridors, which should have not only radial directions but also tangential, as the development of the urban structure was getting progressively decentralized. Secondly, the Public Authorities had to regain control over the key system parameters, as the actual patronage and fare receipts, which had been largely under control of the operators, which explored the information asymmetry before mentioned. Thirdly, the users were expected to get the right to free interchange, without paying an additional fare price. Thus there should be a central fare price collector and distributing entity which could not be any longer in the hands of the operators' syndicate, as demanded by the State Prosecutor. Hence, a central information system on real-time patronage and fare receipt was designed, which should be controlled by the authority and inform daily the rewards dues to each operator. The information should go public. The fare receipt should be centralized by a separately contracted bank (by tender), which would pay the operators after a period of five days.

Consequently, one requirement for the tendering procedure was clear since the first moment: for each group of lines put to tender, the operators should be selected accordingly to the minimum reward per passenger required. The procurement rules established also a limit of tenders a same operator was entitled to attend. But the risk clauses appeared soon as an important element of the model, in order to hinder that the initially competitive and low rewards would be marked up following alleged rises of the operational costs.

Following the systematisation of risks mentioned in the preceding section, four classes of risk clauses were designed: risks to be within the responsibility of the operator; risks to be within the responsibility of the contracting authority; risks to be shared between the parties; and the mandatory procedures for the cases the authority should be taken into responsibility for the risks within its competence.

Risks to remain the responsibility of the operators

The draft contract foresees that all risks with respect to the internal management of the operating company and also to its funding structure are to remain within the responsibilities of the company. This includes the risk events related to:

- interests rates and respective fluctuation;
- the procedures to finance the contracted business (debt and equity)
- internal management events that may put under peril the company, its organization, its financial structure and its capacity to comply with the contract duties;
- changes in capital control and stakeholder, which may imply instability in the finance and technical capacity of the company;
- adaptation of innovative technologies that have not been imposed by the Contracting Authority;
- failures in operation or in its financing derived from actions and omissions by the contracted company;
- lack of cost control;
- adverse fluctuation of the cost the and quality of material inputs for the operation;
- adverse fluctuation of labor;
- labour conflicts;
- residual value risk of the assets.

Also the following risk events shall remain in its responsibility field:

- fluctuation of the patronage due to general macroeconomic situation, to modification of demographic and spatial structure of the market, or to changes in market preferences with respect to the contracted service, may it be caused by lack of service quality, may it by the preference for other transport modes (automobile, bike, directly contracted bus service etc.);
- Tort events caused to the users, the Public Administration and third parties;

Some comments on the above listed items are necessary. With respect to the cost fluctuation of the operational inputs (fuel, vehicles, tires etc.), it may appear a radical cut to the current cost plus culture, as these fluctuations are entirely put under the responsibility of the operator, which is only, and even so only limitedly, protected against monetary erosion, i.e. inflation (see further).

It may be remembered that, at least in the Brazilian practice, the bus operators have gained already a commercial and financial maturity and may be considered modern enterprises. And as modern enterprises are contracted and no more fragile artisan operators, those are expected to behave like such, that is, to be able to produce efficiency gains that are transferred to society. The simple fact that the Public Authority is contracting them a huge amount of services, which gives them a stronger market position as big costumers of the manufacturing industry, they are expected to reward the generous contract dimensions by their effort to negotiate the input price more fiercely, and so to mitigate the respective adverse cost risks. By not provoking this negotiation effort by the operating companies, which will be actually enabled to impose their market force as a syndicated industry (e.g. the organized operators may decide not to renovate their fleet for a couple of years, or simply to import their needed inputs), the manufacturing industries will be at their ease to mark up their prices, as these will be automatically transferred to the fare prices.

As mentioned before, this change will be a radical one not only with respect to the internal management of the companies but also to the management practice of the Authority, which has been habituated for long decades to analyze operational costs and decide the fare prices on the basis of table costs. Initially conceived as a managerial help for the calculation of the fare prices, these tables have been largely responsible for the inefficient cost transfer on behalf of the user, implying in rates of fare price increases far larger than the inflation rate. By the new cost risk regulation, both the Administration and the user community are now to be freed from the responsibility of gathering the cost information for establishing an approximately "fair" fare price, intent that will always be frustrated because of the actual information asymmetry.

Another cultural change is implied: the Authority is expected not any more to interfere into some internal decisions of the companies as e.g. to impose the amount and deadline for fleet renovations, as it will be more concerned with the final service quality and less with the production inputs: once fixed a age top for the vehicles on grounds of safety reasons, say ten years, the Administration will concentrate its control and sanctioning efforts in reducing the frequency of service default events. The company will be expected to maintain the vehicle properly so that service default by mechanical failures are kept at a minimum level.

With respect again to the traditional table cost, it will remain solely an internal device for establishing the initial price caps at the tendering procedures, and even so the Authority shall be free to try lower caps than those calculated on the basis of the table costs (as the current cost information may be considered as manipulated and inflated). The reward of each company will than be defined by its tender proposal and will be readjusted solely on the basis of the contracted inflation adjustment rate and the risk rules.

The transference of the labor cost and conflict risk to the operators is also worth of separated commentary, as it will introduce a further cultural and political change in the industry: in Brazil, it is common that the operators enjoy labor strikes in the industry, as it damages heavily the local economy and put pressures on the Government to mark up the fare price. This complot behavior has flourished in many cities, so that some union sand operator's syndicates work actually together, and even strike breaker are punished by the companies! With the regulatory change, the Administration will be impeded to concede fare price changes following to labor movements, as it will be bound by a legal contract to the risk clauses, and any adjustment not foreseen by contract may be prosecuted by the Audit Offices.

The second major comment refers to the market risk, which is largely transferred to the operator, too, with the exceptions discussed below. Especially with respect to the market risk caused by structural change in economy, space and demography, it may be actually considered to be shared with the Authority or the user community: the operator overtakes this risk during the contracted period, and for a subsequent tender period, a new price cap calculation is due considering the new market structure. This may imply that the operators will not any more be interested in long, stable contract periods, which implies always inertial resistance against the due tendering procedures: moreover, they will have more incentive to assess positively shorter contract periods, provided that a foreseen cash flow is assured (that is, they will finally behave as true capitalists).

With respect to the demand fluctuations during changing market preferences, it may be considered in the entire responsibility of the operators to remain attractive for the user, which may give them a good incentive in investing in service quality.

Risks to remain in the responsibility of the Contracting Authority

Basically, the responsibility field of the Authorities is to be reduced to the administrative actions that may affect adversely the contract. This accords by the way to the actual origin of the notion of the right to economic equilibrium of the contract, which is the due protection of the contracted party against the adverse effects of the actions that the Public Administration is entitled or even obliged to undertake on behalf of the public interests.

In this sense, the Public Administration shall assume the responsibility with respect to the following risk events:

- modifications in general service regulation
- modifications in legislation that directly or indirectly affects the contracted service;
- modifications in Tax Law;
- modifications in service and asset specifications;
- modifications in the network integration regulation with respect to route, timetables, fare prices and organization;
- demand fluctuations due to illegal competition whose repression is not effectively enforced by the Authority;
- delays in official permission procedures (e.g. environmental, planning permissions);
- annulment of the contract due to formal irregularities or to conflicts regarding competences of the authorities;
- instability of service inputs to be provided by the Public Administration (e.g. power);
- early termination of the contract due to reasons of public interest;
- early termination of the contract due to heavy contract default by the contracted operator.

In the case of adverse demand fluctuation on the grounds of illegal and not effectively repressed competing services, the contract should point out more precisely when the official repression is to be considered not effective. With regard to the early termination due to contract default by the contract, it may sound unjust that this risk lies under the responsibility of the Authority. But in fact, it is the responsibility of the Authority to ensure to the user the stability and continuity of the services. Beyond this, the legislation provides enough sanctions against one company when its contract is terminated on the grounds of contract default, as the Authority and the users will be entitled to indemnities by the faulty party.

Shared risks

As mentioned before, the Public Administration and the contracting party share the risk for the monetary erosion, that is, the inflation risk. The inflation adjustment rate implies that the Public Administration, i.e. the user, assumes the risk up to the level of this rate, and the contracting party above this rate.

Another typical risk which is shared is the force majeure risk (acts of God), whereby the contracted party is obliged to reassume the service in a more adverse infrastructure condition, until the Public Administration restores the normal conditions, under its responsibility.

In the discussion of the Manaus model another risk category has arisen which is the modeling risk, referring to the risk of worse market conditions than those foreseen by the information put forward by the Authority in the procurement documentation. Actually, the contractor

assumes the risk for an initial period, say 6 months, afterwards a revision of the contract terms is due if the actual receipts are below than foreseen.

The rule for other risk events that may arise and are not explicated in the contract is to be established by mutual consent.

General procedure for the enforcement of the risk rules

For turning effective the risk rules, following measures are foreseen in the draft contract:

- Any tax reduction shall imply a corresponding reduction in the fare price.
- The damages linked to risk events in the responsibility of the contracting authority may cause a corresponding fare price adjustment, a direct indemnity by the authority or a adjustment of contract rules in favor of the contracted operator which produces a value corresponding to the actual value of the damage (reduction in asset investment obligations, extension of the contract period and the like).
- Occurring a risk event which is in the responsibility of the Public Authority, the contracted party shall communicate it officially within a prescribed delay, proving the damage suffered and its clear relation to the risk responsibility of the contracting authority. After the delay the responsibility of the Authority decays.
- The contracting parties are obliged to co-operate in order to prevent or to mitigate the damages due to the different risk events.
- A public audit is due before any fare price adjustment is decided following the damage provoked by a risk event in the responsibility of the Authority. This step is to ensure the legality and transparence of the adjustment and shall not act as in impediment to turning effective the rights of the contracted party. On the other hand, this measure prevents the risk of the adjustment be questioned in the Courts, provoking an additional legal risk.
- In the case of risk events not the specified in the contract, the responsibilities to be assumed by the parties following an agreement are to be firmed in an official protocol and to be published.

CONCLUDING REMARKS: THE LEGAL FEASIBILITY OF THE NEW RISK RULES WITHIN THE BRAZILIAN LAW

The above exposed innovating risk rules stick fully to contemporary risk economics, but there is a long way until it may be largely implemented in the Brazilian reality, which is still dominated by a radical user-unfriendly cost-plus culture. The discussion among Brazilian lawyers is still in the beginning, and even consecrated national authors in Administrative Law confirm that in Brazil, the Law gives to the party contracted by the Administration large rights to readjust its reward expectation as soon the as the initial "financial equation" of the contract is disturbed by "not foreseeable facts or by foreseeable facts but in unforeseeable amount" (Bandeira de Mello 2007, Di Pietro 2006). This means an automatic shift of every cost risk to the user or to Government (i.e. to the taxpayer).

Nevertheless, the risk management paradigm is already taking foot, and the recent Law no. 11.079 of the year 2004, which has introduced new concession contract modalities (PPP contracts), foresees that the "objective risk allocation between the parties" is one of the

guiding principles in the new contract modalities. Also, risk clauses shall be a mandatory part of the draft contracts.

The draft contracts for the first PPP road concessions (Ministério do Planejamento, Orçamento e Gestão, 2006) foresee in their clause #20 that the contracted party is responsible for the following risks:

- modelling risks;
- toll dodging by the users;
- planning and environmental permissions;
- investment and expropriation costs;
- timetable of investments;
- technology;
- destruction and theft of assets:
- social upheavals which may disturb the execution of the contract;
- interest and exchange rates;
- environmental damage;
- insurable force majeure risks;
- inflation above the established adjustment rate;
- Tort.

As a counterpart, the Public Administration is liable for the following risks:

- legal decision against the fare rate and respective adjustment as established in the contract:
- not compliance by the Administration with its contractual obligations;
- not insurable force majeure risks;
- modifications of specifications imposed by the contracting Authority;
- modifications in Law.

One may discuss whether these clauses, which appear too draconic against the contracted party, really sticks to an efficient risk allocation rule as presented above. But the fact is that the detailed allocation of risks by the draft contracts is already becoming reality. And no statute forbids the adoption, by analogy, of detailed risk sharing clauses in other current (i.e., non-PPP) concession contracts, for example in public transport operation contracts.

Of course, one may expect that the operators, which are habituated to the comfortable doctrine of economic equilibrium, will resist until in the Higher Courts against the introduction of the concrete risk clauses. But at least the doctrine of economic equilibrium is no more unconditionally mandatory in Brazilian Law, and victory in the Courts have now turned possible.

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