

## TRANSPORT

# Regulatory risk in the tendering of rail lines

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**In this paper we discuss the regulatory risk associated with tendering regional public transport lines from the regulator's and the operators' perspective.**

The market for rail is a typical network industry. While rail infrastructures are generally considered to be monopolistic bottlenecks, competition on the services layer may be feasible if all potential operators have equally access to infrastructures at fair and transparent conditions. However, in the rail market, services at a socially optimal scope and with according quality levels are often not commercially sustainable: The marginal costs of operating certain lines exceed potential monopoly revenues because of tight intermodal competition. In this paper, we focus the analysis on such rail services, which the market would not provide spontaneously at a socially optimum quality. In these market segments, there is an underprovision which may be corrected by government intervention through regulation.

In general, if a government has a mandate to provide certain services to the public that are currently not supplied by the market, it has two basic options: The first option is public provision by the state. This option is often chosen for critical goods such as police and military forces, or utilities such as water, electricity, or postal services which to date remain public in most countries. The second option is contracting for the requested services at certain conditions. The government can choose between direct negotiations with selected parties, beauty contests based on various selection criteria, or public tendering, where a market mechanism is implemented to choose the optimal candidate at the lowest cost. Public tendering has been successfully applied in large government projects, for example construction. In recent times, tendering mechanisms have also been applied in the transport industry.

Compared to the public provision of goods or contracting with direct negotiations, tendering is considered to be a more market-oriented and therefore more efficient means of allocating public services contracts. However, it also introduces new kinds of risk which are inherently related to this kind of regulatory intervention. From the government's perspective, tendering may be subject to moral

hazard and services may not be provided at an efficient price or quality; from an operator's perspective, the compensation for tendered contracts may be too low if it does not properly account for the commercial risks involved.

## Tendering in European Transport Markets

The most common way of competitive tendering in Europe is the tendering of gross cost contracts. This means that all income from retail sales accrues to the authorities and that the operators bid for the costs of running the contract. Hence, operators have little incentives to improve income and develop their provisions beyond reducing production costs. In contrast, when net cost contracts are tendered, operators retain all retail sales income and hence are incentivized to develop their offering.

In the UK, there are two different operating environments in the bus market. Outside of London the bus market has been privatized in the 1980s. Bus companies generally operate on a commercial basis. On lines that would not otherwise be commercially viable, local authorities may contract out services to operators. In London, the bus market is contracted out by the city's transport authority. Contracts specify the required lines, vehicles and timetables and are monitored to ensure high quality services, with the transport authority bearing the revenue risk under gross cost contracts. The rail market is competitively tendered in the UK. Operators bid for franchises of set timescales and service provision.

In Sweden, competitive bus market tendering is well established. Passenger Transport Authorities determine ticket prices, timetables and contract duration. Contracts are typically gross cost, and last eight years on average. There are service and quality incentive regimes. Sweden also tenders regional rail contracts. Often, rolling stock is provided by the contracting authority. The arrangements are typically gross cost and last between three and five years. There are additional quality service incentives in place. Inter-regional rail service contracts are often net

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cost. Their duration is between 10 and 15 years.

In Germany, around 10 per cent of the bus market has been competitively tendered. Contracts are tendered by cities, districts or public transport associations. They can be net or gross cost contracts ranging from five to eight years in duration. About one third of the regional rail market is tendered. Regional authorities are responsible for tendering regional rail lines. Rail infrastructures are mostly owned by the national operator. There is a broad range of contract types and new rolling stock is usually required.

In the Netherlands, regional authorities are responsible for bus services and organize concessions which are periodically put out to tender. Outside of major cities, around half of the bus market in the Netherlands has been tendered. Contracts are usually net cost with an average duration of eight years. Only a small part of the rail network has been competitively tendered. Regional authorities are responsible for regional rail. Net contracts are typical, but contract types differ widely between the regions. They have an average length of 15 years.

In Switzerland, the Confederation and the cantons order public bus services from transport companies at a fixed price with net contracts. They may issue calls for tender for awarding the contract to a provider. In many cantons, calls for tender are mandatory before establishing a new bus service. Rolling stock and staff must be taken over if a new provider wins a contract. Normally, cantons still award new contracts to existing providers. These companies must prove that they can offer their services at competitive conditions. If they do not meet this requirement, the contract may be tendered. In the rail market, no lines have been tendered so far. At the present time it is unclear whether new legislation will introduce the option to tender regional rail lines too.

### Regulatory Risk from the Government's Perspective

Tendering aims to ensure a potentially efficient and fair market outcome. However, neither of these desirable outcomes is likely to emerge directly from a tendering procedure. Tendering service obligations ideally guarantees that the winning bidder is not able to earn an excessive rent at the expense of the public. It is a well-known result in auction theory that the winning bidder tends to call for too low a compensation if the real cost of a contract is not known. Then, the average winning estimate is lower than actual cost ('winner's curse'). To play the auction right, such an adverse selection bias must be accounted for by the operators at the bidding stage by shading the bid to avoid bankruptcy.

The risks associated with placing low bids in a tender will be less pronounced if there is a possibility to ex post renegotiate contracts, for example if they turn out to be

loss-making for the contracted company. Sometimes, the contract in itself may include some valid reasons for renegotiation, such as changes in taxation or price regulation in the retail market. Additionally, a procuring authority may also be forced to renegotiate terms if the contractor, once the bidding is over, makes use of its informational advantage and the fact that no alternative contractor may be available until after a long and costly new round of tendering. Hence, the risk of needing to renegotiate contracts very much depends on the procuring authority's willingness and possibility to commit to negotiated contracts. If there is an opportunity for renegotiation, this invites potential operators to systematically shade their bid.

A second form of moral hazard relates to the winner's incentives for short term profit maximization. The operator that wins the auction may offer poor service, reduce investments, or find other ways to maximize short-run profits. Such an opportunistic behavior cannot be corrected if contracts are non-renegotiable.

In practice, renegotiation of publicly procured contracts seems to be rather common. In the UK, several railway franchises were renegotiated as a consequence of the economic problems of Railtrack and due to the need for more investments in infrastructure. In Sweden, the law on public procurement and related EU directives provide rather limited scope for renegotiations without a new tender: Renegotiations in Sweden are only allowed if they do not aim at significantly changing the original contract. There have been some efforts to use ex post renegotiation in the Swedish passenger rail market. Keolis was able to renegotiate its contract in the Stockholm region as new lines were added. Also, Connex was allowed to abort some train departures of its railway services to northern Sweden after renegotiations with Rikstrafiken. The operator BK Tåg unsuccessfully tried to renegotiate a loss-making contract by putting forward that its assumptions about coordinating its trains with the national network were not met. When the complaints by BK Tåg were rejected the firm went into bankruptcy.

The need to renegotiate contracts is a typical result of the operators' moral hazard in the bidding phase. It is of particular importance in net cost contracts, where business risks are high. If earnings are higher than expected, the winner of the tender is able to earn a profit. If earnings are lower than predicted, however, the threat of bankruptcy will likely force the government to renegotiate the contract. Guasch, Laffont and Strauss (2002) found that more than half of the 307 concession projects they analyzed were renegotiated while the initial contracts lasted only three-and-a-half years on average.

These considerations show that the regulatory agency—and the public—bear the risk of awarding a contract

to an operator who is not able or not willing to perform his duties and of having to enter into costly renegotiations or to find a new contractor.

### Regulatory Risk from the Operators' Perspective

For the operators' perspective, the risk of a regulatory intervention is generally due to the discretionary behavior of regulatory agencies. The problem of such agencies not adhering to original agreements was already noticed by Kolbe, Tye, Myers (1993): 'The problem of moral hazard may be illustrated by a somewhat whimsical example. Suppose a world famous gunfighter invites a tenderfoot to a poker game, but reserves the right to pull out his gun and change the rules at any time. What up-front risk premium does the tenderfoot require if he is to join the game? [...] If the risk premium itself is also subject to seizure during the game (that is, if the amount of the potential loss is also under the control of the gunfighter), there is no risk premium great enough to induce the tenderfoot to play because the tenderfoot can never hope to do anything but lose all assets brought to the table.'

There are examples for regulatory discretion in many network industries, for example the telecommunications sector in Europe: The regulatory mandate specified in the Framework Directive and the Access Directive provides unspecific regulatory obligations with a subsequent large scope for discretion by the different regulatory agencies in Europe. Consequently, contradictory conclusions have been drawn by different national regulatory agencies and these were accepted by the European Commission.

When markets for regional transport are tendered, there are—in addition to the general regulatory risk—specific risks which can and should be compensated: The first relates to the regulator's possibility of commitment. When tendered contracts last for several years, the awarding regulatory agency may not be able to commit to pay the agreed subsidy to the winning firm during the entire contract period. In Switzerland, for example, subsidies have to be approved by the parliament every year and there may well be cuts in funding during contract periods. This problem may be solved if the parliament could allot subsidies for the entire period of the tender and not on an annual basis.

The second risk, which is specific to tendering, results from the tender period deviating from the depreciation period of the rolling stock. Even though there is an obligation to take over the rolling stock and staff from a previous operator, a contract may not be extended at all after the end of a tender period. This is currently an issue in Switzerland, where the number of bus lines operated on

behalf of the cantons may be reduced sharply as of 2012. Not being able to write off substantial investments may be considered as a usual business risk and therefore to be not specific to regulated industries. However, there is a significant difference: There is one single party on the demand side of a tender—namely the government body that determines the number of tendered lines. In other markets, the demand side is much more diverse and hence, the risk of one single consumer opting out matters only little.

In Switzerland, price control periods are much shorter than tender and license periods. This adds even more regulatory risk to a tender. Moreover, bids have to be submitted without being able to anticipate future price regulation.



Figure 1 | Distribution of policy fields over levels of government.

See Figure 1 for a comparison of time horizons of relevant dimensions in regulation and in the tendering of rail lines.

### Conclusion

We can conclude that the regulatory framework imposes specific risks to the government and regulated firms at the same time. The operators' regulatory risk of an intervention cannot be compensated for. Specific risks related to the tendering of transport markets result from regulatory agencies not being able to commit themselves to allow full cost recovery of the invested capital. These issues can be resolved if the contract period is aligned with the rolling stock depreciation and if the necessary public funds are approved for the entire tender period. An alternative is the provision of rolling stock by the contracting authority, as it is often done in Sweden. This limits the operators' cost side risk to variations in their operating costs. ★

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