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TRANSPORT REGULATION FROM THEORY TO PRACTICE: GENERAL OBSERVATIONS AND A CASE STUDY

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TRANSPORT REGULATION FROM THEORY TO PRACTICE: GENERAL OBSERVATIONS AND A CASE STUDY

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1. INTRODUCTION

Economic regulation *per se* is a highly controversial issue, and more so in the transport sector, given its high technical complexity -- infrastructure and services, public and private actors, social and efficiency objectives. Moreover, there is little consolidated, practical experience in this sector as regulatory institutions are rather scarce and their tasks far from being clearly defined.

The first part of the paper analyses a number of general transport and mode-specific issues, that can provide indications for both setting up regulatory bodies and orienting their strategies.

In Section 5, a national case study is presented (Italy), where no specific regulatory institution for the transport sector has existed until now, but where some attempts at introducing regulatory principles have been made, albeit with little practical success. Nevertheless, the defense mechanisms set in motion by the regulated companies (and the political actors supporting them, either within a “captured” context or simply to maintain their dominant role), can provide some important suggestions for future action, corroborating the initial, more general considerations.

2. SOME GENERAL ECONOMIC ISSUES, RELEVANT FOR INSTITUTIONAL CHOICES

2.1. A special difficulty

Regulation, a different approach to public policy from “command and control”, implies the concept of “capture” from special interests. Capture occurs when a state regulatory agency, created to act in the public interest, acts instead in favour of the dominant commercial or special interests in the industry or sector it is charged with regulating. Regulatory capture is a form of government failure. More generally, capture can concern both the state agency and the elected-electors relationship. In this paper only the former will be dealt with, even if the latter also has important policy implications.

Shifting from a traditional situation of command-and-control to a regulatory one is very difficult, for solid theoretical reasons. First, an advance consensus has to be reached that a capture mechanism is in place, and, second, that this mechanism is severely harming the public interest. But the nature of the capture mechanism in the state agency context is symmetrical, i.e. based on an exchange of favours and benefits. Typically, the agency – for example, an airport concessionaire – obtains higher tariffs and in exchange extends the workforce beyond the requirement for political consent (votes of exchange). Possible examples are numerous.

“Ay, *there’s the rub...*” In fact, the same actor that is supposed to change the situation from command-and-control to regulation, is the political body (the state, in one form or another) that benefits from the above-mentioned exchange of favours. Thus, there arises a double obstacle to regulation: both parties – the state and the agencies or firms to be regulated – are strongly against it. In fact, the regulator often has to face the continuing hostility of these two actors, even after the regulatory institution has been set up. In some European cases, opening up competition has been easier in the private rather than public sectors, as in the former case opposition came from one side only - the private actors.

From this, a first indication emerges for the regulator: it is necessary to protect the scope and goals of its activity as far as possible in order to avoid political interference (while pressure from the regulated actors is considered natural). This implies adhering strictly to the efficiency goals, allowing the politicians any decisions concerning social objectives. But this is easier said than done: there are many blurred areas. Let us have a brief look at the main ones.

2.2. Social issues

In fact, only with the traditional neo-classical approach are income distribution issues perfectly separated from efficiency issues: in more recent times the picture is far less clear-cut. As an example: cost savings policies for public transport services may well imply a net reduction of income for the workforce, and privatisation and/or competition policies imply an explicit remuneration of invested capital and its risks, i.e. given fixed public resources, a transfer of income from labour to capital.

Another touchy issue concerns the PSO (Public Service Obligations): evidently this also contains a social aspect, and not a minor one. Technically, it can be efficiently solved via highly differentiated tariffs: for example, a public transport service paid at full cost and available to all, even in isolated locations. But in general this implies some form of levelled tariff policy. Furthermore, the regulator has to clarify, in advance and in detail, the social content requested by the policymaker.

A third social issue is a really complex one: the environment. Technically, it is a problem of efficiency rather than a social problem. Efficiency requires that every external cost is paid for by the polluter (the “polluter pays” principle), and an extensive literature exists on the monetary value of these external costs, together with international standards, etc. But there also exists a relevant equity issue: the compensation of those polluted. Sometimes this is plainly not possible, and sometimes it is complex both in practical and theoretical terms. For example, if an airport generates noise pollution within its vicinity, in general the victims are not the more recent inhabitants, but the initial ones (the newer owners and tenants will have benefited from lower purchasing prices or lower rents, due to the already existing noise situation).

The only strong recommendation that emerges here is the duty of the regulator to calculate the opportunity cost of every social choice that the policymaker wants to make. This is for obvious technical reasons: the regulator by definition is supposed to be technically capable of calculating costs and benefits related to the sector it is appointed to regulate (while the policymaker may lack both the will and the capability to evaluate those costs).

Concerning this last observation in particular, another duty for the regulator emerges: the need for explicit and transparent accounting for the costs and benefits, both *ex-ante* and *ex-post*, of the same regulatory policy and decisions that it is itself requested to undertake. The results are far from obvious¹. Sometimes the transaction² costs of regulation are very high, and sometimes the possibility

of mistakes by the regulator are higher than the potential gains. The existing “command and control” practice may sometimes be acceptably efficient, and at other times a plain and straightforward liberalization has a better chance of success than a complex regulation. Performing these evaluations is an important proof of independence by the regulator, since it has an obvious implicit interest in extending its role and activities in every possible situation.

2.3. Infrastructure

Another relevant issue concerning the independence of the regulator is related to infrastructure investments. The problem here is twofold: theoretical and practical. In fact, the theory of regulation of large, long-lasting, land-consuming investments appears far from well-defined, and moreover far from being corroborated by solid results. This fact, if unchecked, leaves much room for political interference, both appropriate and, especially, inappropriate.

The second problem is that planning (in the regulatory way of thinking, a form of command and control) is generally necessary for this type of investment: land use is planned, nor can one imagine that this could be substituted by standard regulatory practice. Land can certainly be private, but its efficient use has little to do with the kind of efficiency expected from utilities. This fact, in turn, allows for systematic interference by planners (i.e. politicians, or politically-driven technicians) in the field of regulatory activity. In general, this attitude generates over-investment, or “gold plating” practices. Why does this tendency prevail against the potentially symmetrical alternative, i.e. under-investment? This is mainly due to the political and media-related visibility of infrastructure investments and, in some transport sectors, the self-financing of large investments without any substantial resistance from users (see the low elasticity of road demand, i.e. the high willingness to pay for this modal choice).

Therefore, inefficient investments are frequently planned (i.e. requested by the political decisionmakers), under the pretext that they are needed for social reasons. On top of this, a special alliance among concessionaires and the political world is rapidly rebuilt: since the investments requested by politicians (local or central) are in general not paid for by existing tariff levels, the tariffs have to be readjusted upwards. This type of investment can be called exogenous, as opposed to endogenous investments that concessionaires will make in order to save costs or to enlarge the capacity at the existing tariff level; i.e. they are profitable even without an increase in tariff.

A particular form of the Averch-Johnson³ effect ensues: the concessionaire is motivated to obtain political support (or to actively pursue it) for any type of new investment, since, even in the case of normal profit rates, its *total* quantity of profit will grow.

What are the consequences for the regulator in this “objective” situation? These are not easy to define, except in terms of its direct involvement in the economic analysis of the investment projects, in order to verify if social benefits will compensate costs; but definitely this is an uphill path. Nevertheless, insisting on this point is a sign of political independence, and of the regulator’s will to defend it⁴. A final consideration on this point concerns the need for the appointed regulator to spend some time and resources in understanding the specific capture mechanisms that are in place, remembering that the real *raison d’être* of regulation is to fight against capture practices. These mechanisms can assume very different forms: they can be linked with the economic power of the regulated companies; the influence of the trades unions (particularly in cases of overstaffing); local levels of public administration, which may fear losing some special advantage; or the ideology of the “national champion”, i.e. the assumption that large companies’ monopolistic rents, even if harmful for

the taxpayer, in the end may benefit the economic weight of the country. The concept of reciprocity is also used in order to justify the undue protection of national monopolies from competition. This tool can be very influential in reinforcing the regulator's strategy of independence, providing it with a sound basis for subsequent actions.

3. SOME INSTITUTIONAL ASPECTS

3.1. History

As stated in the previous section, the independence of the regulator has to be set against two separate actors: the state, in its different forms and administrative levels, and the regulated companies. Since the institutions for transport regulation are in a relative state of infancy compared to other sectors, special attention has to be given to the regulatory context that already exists. History may help here: the more consolidated, independent regulatory authority is concerned with the promotion of free competition, and the famous Sherman Act of a hundred years ago helped to abolish the idea of the state as a benevolent, all-knowing ruler. Not only are markets not spontaneously efficient, but the state is not the best entity to regulate them. Independent regulation was born, and with it the concept of "capture". The independent regulation of natural or legal monopolies emerged as a consequential need. Both activities are necessary in order to defend public interests, since too often the state appears not up to the task, given its political constraints (short-term consensus, etc.), which are the implicit price of democracy. (The assumption of the non-spontaneity of the market, contrary to the common, apologetic wisdom of the "invisible hand", can be clearly found in the writings of Adam Smith⁵.)

Concerning the independence of new regulators, an obvious, preliminary obstacle lies in the pressure from existing ministries to keep at least part of their established role. This often means duplicating functions with the regulatory body, with highly negative results in the form of contradictory signals, etc.

3.2. Proximity

As a consequence, close contact between the regulatory authority and the antitrust authority can be strongly recommended. This is also beneficial for technical reasons through an approach based on the subsidiarity principle (i.e. free competition whenever efficient, regulation when necessary, "command and control" only as a default solution). This approach can be supported by the cultural proximity to the antitrust institution, which generally has a strong tradition of fighting the pressure from monopolistic firms or cartels, often defended by some captured public body or institution.

Even in strictly technical terms, a newly-born regulatory body can learn much from a more consolidated institution, assuming that the new body starts as a branch of the antitrust authority and sets out as a separate entity only when solidly established, in technical and cultural terms. Initial isolation may mean a far higher risk of capture from both sides (the state and the regulated or to-be-regulated companies).

Needless to say, this proximity can be recommended only if the antitrust authority is: a) fully independent; and b) not prone to “substituting” for the regulator in order to enlarge its role beyond the correct limits.

3.3. Higher levels

Another dimension to be considered is the emergence of different possible institutional levels of regulation besides the traditional national level. A higher level is especially relevant for the European context, represented by the European Commission. But more generally there are some issues that may require an even higher level, similar to that represented by the WTO for international commerce. This could be valid for global transport services, such as airlines and sea freight transport.

However, let us limit ourselves to the European dimension. The role of the Commission can be extremely important in order to curb and limit the strong national tendencies of protecting “national champions”, which at a national level are one of the strongest political obstacles that a regulatory agency has to face in order to protect users from monopolistic behaviour (and its related social costs). Needless to say, the symmetrical and widespread protection of “national champions” is not even a zero-sum game: in the end everyone will be worse off. In the transport sector these examples are very relevant and numerous⁶. The indication emerging here for national regulators is to develop links as tight as possible with the supra-national institutions as another way of protecting their independence, even though “capture” pressures are sometimes able to reach this higher level also⁷.

3.4. Lower levels

So far so good, but a contradictory instance emerges from lower administrative levels: the regions, in particular, have increasing political weight, after the German experience of effective decentralisation (*Landers*).

This tendency is apparent in the UK (Scotland), obvious in Spain, in Italy now a major issue of political debate, and growing even in super-centralised France, not to speak of the United States. The first question here is: are the lower levels of public administration more or less prone to “capture” mechanisms than the central government? A second point is: can the regulatory rules and norms needed for natural or legal monopolies be efficiently differentiated in space?

Both answers are far from obvious. Let us consider a simple example: tariff rules for toll highways.

A weak regulation will directly affect the users of a specific highway, and their political representatives may well be more interested in defending them at local level (where they vote) than at national level. In other words, local regulatory agencies may well have an easier task in defending local users or taxpayers. But a set of different tariffs may generate complex problems at national level, even for technical reasons related to fare collection. Similarly, local, monopolistic rail services may need higher subsidies than those tendered out, generating local discontent and the consequent pressures to extend the “good practice” of tenders in every region.

But all this is far from guaranteed: a counter-argument can be that local monopolists have to face a weaker counterpart than the central state. For example, the Italian experience has been negative up to now, with stronger “capture” tendencies at local than at central level. All things considered, perhaps the best recommendation would be to set the regulatory agency at national level, with local branches in charge of analysing local situations, even supplying technical support to specific situations that may emerge (on top of controlling the proper local enforcement of central directives).

4. SPECIFIC ISSUES FOR TRANSPORT REGARDING INSTITUTIONAL ASPECTS

4.1. Slow technical evolution

Technologies that evolve at a fast pace notoriously require less stringent regulation. A famous example is the “qwerty” issue, evolving from the standard typewriter keyboard to the more recent Microsoft MS-DOS software (i.e. a special case of a natural monopoly based on a standard feature). The final argument that made the American judges decide against direct action toward that quasi-monopoly was the potential competition arising from free software and technical progress (Apple, etc.). The issue is still somewhat controversial, but basically that monopoly is no longer considered a threat to public welfare (while the actual behaviour of Microsoft has been censured several times...).

In transport, the picture is quite different.

Basic infrastructure is solid and durable, with almost no possibility of evolution. Furthermore, as stated above, it represents a legal monopoly, over and above a natural one. Who can realistically build a competing airport near to a large congested one? Or a competing high-speed line if there are large profits on the existing one? Land use is generally planned, especially where land is a scarce resource, as in Europe. On intensely exploited land, existing infrastructures generally preclude possible new ones. Therefore, the regulation of incumbent companies in charge of operating and managing infrastructure is a major task for the regulator, even if sometimes, as already seen, the political will is focused on encouraging new investment without paying much attention to efficiency (although efficiency is, in fact, the primary objective of regulation).

For services, the situation is more similar to that for infrastructure than one may think. Innovations in vehicle technology that can put competitive pressure on incumbent service providers are not yet in sight. In the first place, transport vehicles are generally on open sale to every operator. Contrary to what happened during the last century for some types of aircraft, no transport operating company can now afford to develop and buy for itself an innovative vehicle able to compete with those of the existing incumbent.

Secondary markets for vehicles do exist, perhaps with the partial exception of trains. But here the incumbents tend to have the upper hand, being generally bigger and more protected than the new entrants⁸ (a special case for high-speed services will be presented later).

The only possible field where innovation may play an important role is in the managerial area of services. The evidence comes from low-cost air carriers, which proved able to compete with the

incumbent companies via a complex mix of pricing strategy, route planning, airport choice and personnel management. The outcome of this rather timid liberalization of the European air sector was unexpected, and shed light on the potential for liberalizing other services. This appears to be the only field where innovation can play an important role and, therefore, where the regulator must pay great attention, and where its proximity to the antitrust institution can be very helpful – being in fact, a case of de-regulation.

4.2. Diverse problems among the transport modes

Transport is notoriously a highly diverse sector. Let us first look at the technical differences. Some modes have single-point infrastructure, like air and sea transport; complex networks (roads and railways); unconstrained access (roads); and planned access (ports, airports and railways). They may be entirely subject to tariff systems (again ports, airports and railways), or partially free of charge (part of the road system). There is some dedicated infrastructure (mainly ports for freight services, but also some railway lines); and there exists one super-specialised mode (pipelines).

In functional terms, the road network represents the only self-sufficient system, while all the others generally require further complementary modes for the final part of their routes. Needless to say, transport is necessary both for freight and passengers. For the latter category, there are collective modes (trains, trams, buses, air services, ferries and cruise ships) and individual modes (cars, trucks and a few airplanes and ships). There are also semi-individual modes (taxis and other rented services).

In terms of ownership and economic structure, the situation is certainly no less complex. Infrastructure is mainly public, but less so recently. Often it is public but managed by private enterprise. Land transport services are both public and private for passengers, but for freight the private sector is dominant, as with air services. Some passenger services are subsidized (urban and regional collective transport in Europe, e.g. some long-distance train services); other services are heavily taxed (road transport in Europe and Japan, and in several growing economies, mainly via fuel taxation). Infrastructure investment is sometimes paid by the state (mainly railway lines and non-toll roads), sometimes by the users, and quite often there is a mixed contribution.

As we have already seen, there also exist important social and distributive issues in the sector, and these too are highly differentiated. Income distribution may be relevant for public land transport, but not for high-speed trains or air services, nor for freight. Infrastructure can help the economic development of certain marginal regions. Some modes suffer congestion, and the best regulatory practices (congestion charging) can disproportionately prejudice low-income groups. Some modes are eco-friendly (railways), others highly polluting (air and road transport). The environmental impacts on land use are also diverse: some infrastructure is much more intrusive and land-consuming than others.

Finally, in strictly regulatory terms, there are natural monopolies (but again with different degrees of contestability). These are the infrastructures that, as we have seen, are generally also legal monopolies. But there exist pure legal monopolies (often public transport, many train services and some air companies) and even dubious situations, where secondary markets are weak and transaction costs and entry barriers very high (with large investments required), as in the rail passenger service sector.

What kind of indication emerges from this extremely complex picture (basically, different problems concerning different sub-sectors) for transport's regulatory institutions? A possible obvious answer is to break up the regulatory agencies into specialised ones, i.e. one agency for each main transport mode: railways, toll highways, ports and navigation, airports and air services (pipelines are not relevant enough to remain separate).

But generally this is not the case, and for some well-founded reasons. The capture risks are far from eliminated when a specialised, independent agency is created in order to avoid or minimize them. A specialised, modal regulator obviously will set up a bilateral relationship with the regulated sub-sector, its interests and its political supporters. This relationship will be a very long-term one. The risks of "capture" may well be maximized. On the other hand, a multi-modal agency by definition exercises a sort of cross-check and control on the modal sections that may become "weak", or diverge into strategies and techniques from the mainstream. Furthermore, the arising of divergences, if not an expression of capture, may well become a learning tool, and have very positive effects: regulation is a discipline in which "learning by doing" plays a very important role (e.g. the dynamic information contained in the incentivating price-cap method)⁹.

Both of these positive aspects would be lost by setting up isolated, autonomous modal agencies.

Moreover, with this approach, if the financing of the regulatory agencies is in some way linked to the overall revenues of the various transport modes, it will be possible to allocate funds according to the complexity of the regulatory tasks to be performed, a complexity in several cases quite independent from the economic dimension of the sub-sector.

5. A CASE STUDY: TRANSPORT REGULATION IN ITALY

5.1. The failed beginnings of the Transport Authority

In Italy in 1990, a centre-left government established the first independent regulatory authority (for antitrust activities), and it was rather successful and respected. In 1991, another centre-left government designed a law proposing independent authorities for energy, telecommunications and transport, but only the first two authorities have been established. Transport disappeared in the final text of the law. The formal reasons were related to the complexity of the sector, and the excessive political burden of setting up three new administrative bodies at the same time. The idea nevertheless was not fully dead, and was re-proposed in 2002 by still another centre-left government, but without any practical consequence. Alternating centre-right governments in the same period showed little interest in regulatory activities, even trying to actively reduce the independence of the existing agencies: quite a different attitude from the government of Mrs. Thatcher, which in some ways can be seen as the precursor of modern regulatory policy.

5.2. A first experience with airports

In the late nineties, an economic adviser to a transport minister from a centrist government with a clear regulatory attitude was appointed to deal with the airport sector¹⁰. The subsequent attempt to introduce the idea in the ministry that airports were natural monopolies, to be regulated in order to defend the interests of the users (or the taxpayers), and not those of the concessionaires, was perceived as a total culture shock. The minister was expected to help the concessionaires and their profits as a proof of good economic health, whatever their levels. “Capture” was explicit: the goal of the ministry’s civil servants was to be employed, after a few years of good but underpaid work, by the concessionaire of some airport that appreciated their efforts, and this generally in a managerial position. As soon as a completely alternative approach was proposed, their collaboration ground to a halt, followed by a similar change of attitude by the concessionaires themselves, which initially had been very generous in terms of economic data supply. As the ministry was unable to directly impose anything on them, they simply found it impossible to agree on suitable dates for further meetings. (By the way, the budget data, proudly provided by them to begin with, showed in many cases exceptional levels of profit.)

A single, very expert official declared his intention to collaborate with this new approach, but after the fall of the government, he was unable to continue in that direction, and was assigned a post as supervisor in an airport in the south of Sicily.

5.3. NARS and its lost battles: airports, highways and railways

The implementation of regulatory agencies in two important sectors (energy and telecommunications) obtained some effect as a downfall, as well as in other sectors, transport in particular. In 1996, a special body of experts, NARS¹¹ (*Nucleo di consulenza per l’Attuazione e la Regolazione dei Servizi di interesse pubblico*), mainly composed of external consultants, was established within the Ministry of the Economy for unregulated utilities: postal services, water supply and, for the transport sector, airports, railways and toll highways. Ports remained outside the regulatory tasks of this body, since in Italy they have a very specific status.

The role of NARS was limited to the supply of technical advice on regulatory matters to the Inter-ministerial Committee of Economic Planning (CIPE), the body in charge of taking the actual decisions.

Let us now consider the three main issues dealt with by NARS in the transport sector, and the ensuing results: railways, airports and the main one, toll highway regulation.

Railways in Italy are heavily subsidized; the regulatory process started with a “transfer-cap/price-cap” strategy. Transfers and possible fare increases were linked with a set of expected performances, in terms of costs, quality of service, etc. The core of the strategy nevertheless was aimed at raising the share of self-financing activities, given the overall low level of fares compared with other European rail companies. Negotiations with Ferrovie dello Stato (FS) actually went smoothly, since the (politically appointed) management of FS was agreeing on the overall strategy proposed by NARS. But the end of the experiment came brusquely after only two years, shortly before upcoming political elections: the fare increases were cancelled with the (unproven and unreal) argument that in order to curb inflation no fare increase for public services was allowed.

At present, a new entrant has appeared in the form of high-speed services, and activity is expected to begin in 2011. This seems to prove that a possible secondary market for trains may emerge, at least for this type of rolling stock, due to mandatory technical standardization imposed by the European Commission.

Slightly more successful was the action for airport regulation (after the initial failure described above). NARS defined a price-cap formula, and obtained its approval from the CIPE. The method was quite flexible: only the air-side tariffs were involved, leaving untouched the profits on the land side (a kind of half dual-till). But NARS was without any real power of enforcement, not being an independent authority, and the concessionaires endlessly delayed the submission of any proper regulatory accounting, paralysing the entire process. Recently, a partial dual-till has been introduced but, similarly, never implemented. Still more recently, the ministerial body (ENAC) formally in charge of airports, under joint pressure from concessionaires and the political will to show more investment in infrastructure (see above), has defined an across-the-board increase of 3 EUR/pax for large airports, and 1 EUR for small ones, with no efficiency checks whatsoever. NARS seems to have been silent on this, as if it were no longer in charge of this infrastructure either.

Furthermore, a recent national airport plan seems to be mainly aimed at protecting national interests from the attack of the low-cost companies, setting a very specific role and hierarchy for every airport, and even suggesting the closure of many minor ones, which have been the main entry gates for highly competitive companies across Europe.

But by far the most relevant and hard-fought issue was related to toll-highway regulation. The system is quite extensive (6 000 km), generating annual revenue of over EUR 5 billion. The dominant concessionaire (Autostrade SpA) owns more than 60% of the network (and even more than this share in revenues) and it is fully private. The conflict concerned the interpretation of the initial concession contract, which was extremely vague (only one page dealing with the technical content of the price-cap mechanism).

Here, we can only hint at the main issues on the table, i.e. the proper RAB (Regulatory Asset Base), the claw-back mechanism, the reward of quality, the allocation of the traffic risk and the investments.

The core of the conflict was due to a special case of capture. The privatisation of Autostrade SpA, made mandatory by the European Commission, generated a conflict of interests: quick and huge money for the public purse, against the long-range protection of users from monopolistic rents. The first objective prevailed, and the result was, as we have seen, a very vague set of regulatory rules, obviously accepted by the private buyer, which in exchange paid up-front EUR 7 billion for a long-lasting concession (40 years).

The conflict emerged over the interpretation of ill-defined rules, and it rose to such a level that some political analysts attributed the (temporary) resignation of the Finance Minister to disagreement on this issue with another member of the governing coalition, at least as a component of his decision.

In the end, the concessionaires won “more than ever expected” (a public declaration by a manager of Autostrade SpA) via a special law voted by parliament, bypassing the minister, CIPE and obviously NARS, which even here was totally excluded from the regulation of toll highways. The price-cap mechanism no longer exists. Concessionaires, in the following years and even during the present recession, showed egregious levels of profit, far above those of the most successful large Italian companies.

The role of NARS was further weakened in the following years, and at present seems no longer influential in transport regulation, which has been returned almost entirely to the political sphere.

5.4. The case of local transport

Local transport is not a natural monopoly, but in Italy is definitely a legal monopoly, heavily subsidized (70% of its revenue), with very high production costs, and supplied by small companies, mostly owned by local administrations.

A regulation-oriented reform was started in the 1990s¹² (again by a centre-left government), setting rules for competitive concessions (Demsetz competition¹³). But no independent authority was in place, and therefore a strong, bi-partisan resistance by the local administrations ensued. Postponements of the threshold date for tendering began, one after another. A peculiar aspect of this “fight” was that, while a wide number of articles favourable to competition in the sector were published with data and international comparisons, not a single line or a single speech against it appeared. This fact by itself seems to provide a strong indication of capture, and the widespread existence of “hidden agendas”.

At the beginning of this century, a fair number of local administrations (about one hundred), decided to tender out their transport services. But the law, in its final form, showed a fatal flaw, and not by chance: it allowed that the participants in competition for the market were the same incumbent companies owned by the local administrations who were judging the offers. The result was obvious: very few competitors for each tender, and the incumbents won an embarrassing 99% of the total tenders. The explanation cannot be completed without observing the existence of “residual claimants”: in the past the state had never allowed even extremely inefficient companies to go bankrupt. So the possible reduction of costs stemming from competition was set against the much larger political advantages (in the best cases) of owning monopolistic public companies (i.e. guaranteed support from the unions, and “revolving doors” for the administrators at the end of their political careers).

Recently, the financial crisis has seen a sharp reduction of public funds, even for transport services, but its final result is far from clear: many local administrators have declared that fares will not increase, nor will services (even those with negligible patronage) be cut, or tendered out in order to reduce costs.

Per se, even free-of-charge transport services can be justified (for welfare and/or environmental considerations). But providing services at an unreasonably high cost cannot be justified on any social grounds.

5.5. The case of ports

Ports in Italy, simply for historical reasons, follow an administrative regime completely different from other infrastructure. They are governed at regional level, even if the appointment of top management has to be approved by the central government. For this reason they have never been considered possible subjects for regulation. They receive funds for investments from the central administration in a highly discretionary way. Efficiency is not considered an important issue (actually, there are two residual claimants: the central state and the regional administration). No general concessionaire exists: sometimes partial concessions are granted to private operators, and the

dominant opinion is that the tariffs agreed are quite low, based mainly on political considerations. For example, the above-mentioned transfers from the central state render negligible the pressure to recover at least part of the costs of investment, even when market conditions would allow for this recovery.

5.6. Some positive aspects nevertheless

The picture of Italian transport regulation outlined above appears to show a list of failures. Nevertheless, this is not entirely true. The capture mechanisms have won, but the basic concepts of regulation have infiltrated certain levels of the administration, some aspects of public debate, including the media, and even affected the attitude of the regulated companies.

“Monopolistic rent” is no longer a forbidden term. Inefficiency, on the contrary, was never a forbidden concept, but always seen in terms of the quality and the quantity of the services supplied, far less in terms of production costs.

Even the lessons to be learned from the Italian case, with some effort, may be seen as positive. The major lesson is to never forget the difficulties of innovating in this field: those interests hit by effective regulation will be vocal and well-informed and, above all, their reaction is immediate. The potential beneficiaries (the users and/or taxpayers) are in exactly the reverse position, and the benefits they obtain are to be compared against something not easily tangible, a highly hypothetical “do-nothing” situation (“how much highway toll would I have to pay today, if proper regulation had not been put in place?”).

6. CONCLUSIONS AND RECOMMENDATIONS

From the large number of issues and the case illustrated above, perhaps a limited set of solid conclusions and consistent recommendations can be drawn.

1. Transport sector regulation may well be less advanced and more fragmented compared with other utilities. Quite often, no independent sector-wide regulatory agency exists. Therefore, solid links and alliances have to be built, and particularly so with the antitrust agencies (for “subsidiarity” reasons, and given the strong market-oriented culture of those institutions), and with international bodies (in order to reduce the risks of domestic capture). For the same reason, any fragmented, mode-by-mode solution has to be avoided.
2. The growing administrative and political role at the regional level is double-edged in this field: more direct control from the users/local taxpayers, but weaker regulatory powers. Probably, a case-by-case strategy has to be implemented, even accepting some compromises. A national regulator setting overall rules, with local offices for implementing and controlling them, seems to be a possible solution (allowing some space for local negotiations).

3. Capture mechanisms are enhanced by discretionary practices. Politicians love them, sometimes for acceptable reasons, sometimes less so. As a consequence, the cost-benefit analysis rationale, even with all its well-known limitations¹⁴, needs to become the backbone of regulatory activity, especially in transport, given its multi-faced structure. This is true for the costs and benefits of every regulatory action, but not less so for investments or for social and environmental aspects. Another central issue is to guarantee open relations with the media, which will also minimize capture risks. Making quantitative analysis and policy recommendations available to a wide public is also a powerful tool against capture, and can foster independence as well.
4. Social and environmental issues are very important in the transport sector, but often used in order to circumvent and reduce the independence of the regulator (as hinted at above). A ring-fencing attitude is mandatory. A possible choice is to leave the distributive issues to the political decisionmakers, but not the environmental ones (a tonne of CO₂ emitted can well be measured and even priced by a technical body, in a cross-sectoral and transparent way). But also for distributive issues, the measurement of social impacts (not their “weights”) can remain in the hands of the regulator, and made public (who is gaining and how much, who is losing and how much from a certain liberalization?). See in particular the IBRD experience.
5. Perhaps it is useful to remember that, whatever the technical sophistication of the tools available to the regulator today, its final choices generally retain a high political content: what kind of economy do we want, and in the final analysis, what kind of (capitalistic) society do we want?

NOTES

1. Posner, R.A. (1999).
2. Coase, R.H. (1960).
3. Averch, H. and L. Johnson (1962).
4. See this point also in the section on the Italian airport plan.
5. *“People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.”* *The Wealth of Nations*, p.152.
6. On the liberalization of the airport slots, and on local public transport, the European action has been very conservative, under pressure from specific national interests. See also the Alitalia case.
7. See the initial part of the proposed new European Directive on rail regulation (a very innovative document).
8. The incumbent national rail companies in continental Europe still control 90% of the market, and this after almost 20 years of the first Directive aimed at liberalizing the sector (D. 420/91).
9. The price-cap method is based on the inter-temporal “extraction” of informative rents from the regulated companies. On this issue, see also Laffont, J.J. and J. Tirole (1993).
10. The author of the present note. Probably the “regulatory attitude” of this government (Mr. Dini’s presidency) was related more to its technical than to its political origin (a bi-partisan compromise).
11. Nucleo di consulenza per l’Attuazione e la Regolazione dei Servizi di interesse pubblico.
12. Again, the author of this paper was involved in the reform.
13. Demsetz, H. (1968).
14. Adler, M.D. and E.A. Posner (2006).

BIBLIOGRAPHY

- Adler, M.D. and E.A. Posner (2006), *New Foundations of Cost-Benefit Analysis*, H.U.P., Cambridge, Mass.
- Averch, H. and L. Johnson (1962), Behaviour of the Firm under Regulatory Constraint, *American Economic Review*, **52**.
- Banister, D. (1997), Bus deregulation in the UK, in: McConville, J., *Transport regulation matters*, Pinter, London.
- Buchanan, J. M. (1969), *Cost and Choice: An Enquiry in Economic Theory*, Markham, Chicago. The Problem of Social Cost.
- Coase, R.H. (1960), The Problem of Social Cost, *Journal of Law and Economics*, Chicago.
- Coco, G. and C. De Vincenti (2008), Optimal price-cap reviews, *Utilities Policy*, **16**, 238-244.
- Demsetz, H. (1968), Why regulate utilities, *Journal of Law and Economics*, **11**.
- Doganis, R. (2001), *The Airline Business in the 21st Century*, London and New York, Routledge.
- Fawkner, J. (1999), *Buses in Great Britain, Privatisation, Deregulation and Competition*, London Transport.
- Gomez-Ibàñez, J. (2003), *Regulating Infrastructures. Monopoly, Contracts and Discretion*, Harvard University Press.
- (1994), Domestic Transport in Japan Present and Future, *Japan Railway and Transport Review*.
- Kerf, M. (1998), *Concessions for infrastructure – A Guide to their Design and Award*.
- Laffont, J.J. and J. Tirole (1993), *A theory of incentives in procurement and regulation*, MIT, Boston.
- Litman, T. (2010, updated), Land Use Impacts on Transport, <http://www.vtpi.org/tm/tm20.htm>
- Maffii, S. and M. Ponti (2002), Pianificazione dei trasporti e del territorio: effetti attesi ed effetti perversi, *Ricerchetrasporti*, Milano.
- Mohring, H. (1972), Optimization and scale economies in urban bus transportation, *American Economic Review*, **62** (4), 591-604.
- Newbery, D.M. (1998), *Fair and Efficient Pricing and the Finance of Roads*, University of Cambridge.

- Nuti, F. (1997), Il caso britannico, in: *Nomisma, Liberalizzazione e privatizzazione nelle ferrovie europee*, Vallecchi, Firenze.
- Parry, I. and K.A. Small (2007), Should Urban Transit Subsidies Be Reduced?, paper presented at the 54th Annual North American Meeting of the Regional Science Association International, 2007, Savannah, Georgia.
- Ponti, M. (1997), Le esternalità di consumo nei trasporti collettivi, *Economia e Politica Industriale*, 96, Franco Angeli.
- Ponti, M. (2001), The European transport policy in a “public choice” perspective, 9th World Conference on Transport Research, Seoul.
- Ponti, M. and A. Gervasoni (1996), Il finanziamento delle infrastrutture, *Ricerca Economica e Trasporto*, Federtrasporto – Centro Studi.
- Posner, A.R. (1969), *Natural Monopoly and its Regulation*, Cato Institute, Washington DC.
- Preston, J., A. Root and D. Van de Velde (1999), *Railway Reform and the Role of Competition: The Experience of Six Countries*, Ashgate.
- Segal, I.R. (1998), Monopoly and soft budget constraint, *Rand Journal of Economics*, **29**, 596-609.
- Shapiro, C. and R. Willig (1990), Economic rationales for the scope of privatisation, in: E.N. Suleiman and J. Waterbury (eds.), *The Political Economy of the Private Sector and Privatization*, Boulder CO, Westview Press.
- Thompson, L. (2001), *Railways in Eastern Europe*, ECMT Round Table 120, Cambridge, OECD/ECMT, Paris.
- Transport for London (2007), *Central London Congestion Charging Impacts Monitoring, Fifth Annual Report*, TfL, London.
- Tucci, G. (2001), Ricerca di stabilità dell’equilibrio di lungo periodo nell’industria del trasporto aereo internazionale, 42° Corso Internazionale ISTIE - Nuova regolazione dei trasporti: principi e strumenti, Università di Trieste.