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AN OPEN REVIEW OF ASPECTS OF RAIL TRANSPORT POLICY

Transmitted by the International Union of Railways (UIC)

As a follow-up to the International Union of Railways (UIC) contribution on the relevance of railways in the transport market to the Working Party's fifty-fourth session (TRANS/SC.2/194, para.17), the UIC has prepared a note highlighting such aspects as efficiency, innovation, capacity, competition, management, regulations, etc. in the railway system, which is submitted for consideration by the Working Party.

This document is a working document which is intended to stimulate debate or a deeper debate, and/or to give new information, and/or to look at familiar policies, arguments or points of view from new angles. It is not a position paper of the UIC, and its publication does not imply a consensus view of the members of the UIC nor approval by the members. Nor does it commit any UIC member to any of the views which might be expressed.

AN OPEN REVIEW OF ASPECTS OF RAIL TRANSPORT POLICY

This paper represents a personal view with the aim of stimulating a deeper debate on rail transport policy. The first four sections of the paper look at some widely held and often quoted views about rail transport¹. The remaining sections then go on from there to look at a number of related topical issues

"The European rail transport system still lacks efficiency and innovation"

There is in fact very little in the way of an objective or quantified basis for this opinion. There is no accepted way of measuring overall railway efficiency. Since railways operate in a very particular way there are no sound ways in which railways can be compared with other industries (both transport and non-transport). Efforts have been made to use railway punctuality and reliability figures as a proxy for efficiency, but a) it is only part of the story and b) there is no objective way of setting the target level, no way of comparing to other transport modes (which also have their difficulties in this area) and cost is rarely entered into the equation.

One measure of "inefficiency" that might be thrown at the railways is the level of government and other authority payments, but modern thinking rejects the old notion of regarding this as deficit financing and now sees these payments as purchasing rail transport for the community - it is the passenger that is "subsidised" - and in theory if the community no longer wants to pay then the services could be withdrawn.

In terms of innovation there are several fields in which railways have been or are at the forefront: computers in use in every aspect of the business (growing from the 1960's), computer operated signalling systems, computer based tracking and tracing systems (from the 1970's), high speed (up to 200 kmh pre- and post-World War II) and very high speed trains (up to 300 kmh in service and over 500 kmh under special conditions from the late 1970's onwards), staff welfare, and safety. Mr. Mehdorn (DB AG) has said that in his view railways are one of the leading "high tech" industries. Of course there are unsatisfactory features which the railways must put right (but they are often in areas which transport policies rarely touch on).

"Rail transport appears unable to increase its capacity"

As a business, the capacity of a railway should be tailored to the traffic to be carried (current or identified potential). This is one of the things that sets railways apart from roads. If new traffic is gained then capacity can be increased by building new lines and adding supplementary tracks, but a) the cost has to be financially justified, and b) there is an impact on the community.

¹ The quotations forming the first four headings are in fact based on the opening sentence of the invitation to a conference held in Rome, February 2001.

"Rail transport continues to lose market share"

From the post-war period to the present day, rail freight in Tkm has increased in every country in the EU with the exception of Great Britain. For the whole of that period just under 50% of the traffic has been international, carried across borders without transshipment or break of journey.

By contrast the so-called "rail market share" or "modal split" percentages that are often produced as evidence that rail freight traffic is declining are, as is evident, incorrect and highly misleading since:

- i) The figures used refer to total transport movements, and rail does not compete for the vast majority of these movements. As the IRU says "About 85% of [road goods vehicles] are relatively small: vehicles not much bigger than a large van. They are mainly used for goods distribution on short runs - delivering food to your local store, for example". And this is before any attempt has been made to discount goods movements to and from places remote from rail or which involve volumes that are just too small or goods that are otherwise unsuitable.
- ii) Similarly there is no way that a market in which rail has an interest can be identified at this "global" level. A market can only be reliably identified at a very specific level, e.g. the supply of coal to a power station or the Thalys services to Brussels (and in such a situation rail often has a high market share).
- iii) In any event market share figures are not an indicator of the financial health or efficiency of any business.
- iv) And last but not least the percentages taken over a series of years which are used to indicate "market share" are statistically invalid, since the conversion of a moving total (total transport movements) into a fixed total (100%) grotesquely distorts all the figures that go to make up the total.

"The sector is still marked by a lack of competition"

In the segments of the transport market where rail does compete with other modes: car, lorry, bus, air, inland waterway, pipeline, and short sea shipping, competition is very fierce indeed. And the fact that rail traffic in Pkm and Tkm shows no sign of falling off - quite the contrary in the case of passenger traffic - suggests that railways are offering the customer - whether company, private individual, or national/regional/local authority - something which is better than the other modes can offer - in a word, at that point rail is competitive.

Certainly there is virtually no competition "on rail", though there has been "on rail" competition in the past and by and large the judgement of history is that it was not satisfactory. But in fact it is still not easy to see that there can be genuine and large scale "on rail" competition. The main reason for this would appear to be that, being a tracked transport system, all the transport units (trains) are interdependent within a network with a closely defined capacity and geographical scope - so competitors can never be entirely free of each other. This is not the case

to anything like the same degree in any other transport mode. So the degree of "on rail" competition possible would appear to be limited.

It would appear that the only way that real "on rail" competition can take place is between trains running on separate parallel tracks - and there are limited examples of this - but for obvious reasons it is not possible on a large scale.

There must also be some questions about the size of the market and whether it can stand a large number of players, and no work has so far been done to examine this. A much more likely scenario is that of a number of players carving up the market into main and niche market segments, with only a limited degree of direct "on rail" competition in certain areas.

Freedom of management

If fierce intermodal competition has not produced the increases in efficiencies and the reduction in costs that are so heavily talked about, then will intra-modal competition, itself highly suspect, do any better? Or is the analysis wrong?

Since the end of World War II, or sooner in some cases, all the railways of Europe have been subject to government control. Whilst there has been a widespread feeling that major utilities which benefit the whole of the community should belong to the State, there has also been a growth of feeling that the State is not in fact the best organisation to run a business. It has been observed that the qualities that make a good politician or a good civil servant are not the same qualities as those that make a good businessman, and even less an "entrepreneur" as the term is understood.

Certainly there is evidence that the State tends to fossilise a railway system, to try to preserve it as it is, because that is the safer and less controversial way. This means that the system is slow to respond to changes in the markets and in the world around it. Lines cannot be closed and prices raised because the result would be disturbing, nevertheless the business is supposed to absorb the financial consequences. Energy is diverted into managing the resultant contradictions and away from seeking new opportunities.

The other side of the coin has also been put forward, namely that governments should "take the brakes off", should "set the railways free", should set the railways up financially and then let them "sink or swim". The theory is that the railways would perform better when free of the contradictions imposed on them by governments, and the twin prospects of financial success or failure would focus managers on finding the most efficient and cost effective way forward, as it does in any other industry.

Directive 91/440 went down this road. However the States will not give freedom.

The Commission, apart from a dogmatic belief in competition, is probably hoping to use competition as a kind of Trojan horse to force a situation that the States will not otherwise agree to. The question is whether the efforts to provoke "on rail" competition are likely to have unforeseen and undesirable consequences all of their own.

With State control of the railways this really means that 3 ministers: Prime Minister, Minister of Finance, Minister of Transport; are effectively "shadow directors" of the railways and are ultimately responsible for them. If people find the railways unsatisfactory in some way, then the blame should be laid first at the door of these "shadow directors", and not at the door of the managers who are trying to implement their impossibly conflicting demands. If any other business goes wrong, who is usually removed first?

Liberalisation and regulation

"Liberalise" = to make liberal. "Liberal" - not as easy a word to explain or "translate" as one might think, since it is often used in specific contexts: Liberal Party, liberal studies, liberal thinker, liberal amount, liberal translation. Of course all are based around the notion of "free", usually implying a comparison, and in the sense of tolerant, generous, less restricted, less constrained. So all in all it may be a slightly strange word to use, possibly even suggesting an uncertainty over its meaning, or an uncertainty over the process. Obviously, too, it is not the same as "liberate", which means "to set free".

At all events the paradox, and the shock, of this "freeing up" process is that it entails exactly the opposite. It entails far more supervision and regulation than was the case before. The classic example is Great Britain where, in the years before privatisation, government control had been reduced to very little indeed, and now control by government and other agencies is probably greater than at any other time in history. Other countries and the European Commission are going in the same direction in proposing more and more bodies with a regulatory function.

If competition is the name of the game, in the belief that it will promote efficiency and reduce costs, then usually the assumption is that the pressures and incentives will come about through "market forces". The assumption is that the framework necessary to limit undesirable side-effects should be minimal in order to allow the "market forces" to do their work. If the framework is too heavy then the market forces will be stifled. In the case of the railways the framework looks set to become so heavy that it will displace the market forces and have exactly the opposite fossilising effect.

Strikingly the "Infrastructure Package" goes right against its own intent by setting up just such an over-heavy framework.

The railways in the USA were being crippled by over-regulation until the Staggers Act in 1980 de-regulated them and they once again became commercially successful.

Privatisation of the utilities in the Great Britain (gas, electricity, telephone, and water) has brought significant tangible benefits for the consumer in at least the first three of these industries. Regulators were set up for each utility to regulate those areas of monopoly that could not be swept away and where market forces did not operate. Significantly these regulators are much less interventionist and have a much lower public profile than the regulatory bodies set up to watch over the UK rail system, on top of which, for the rail system, there is the continuing government intervention.

Separation of infrastructure

This is still a great experiment. It was put forward on the basis of no analysis whatsoever, and was based originally on "the road model" without a full appreciation of how big are the differences between road and rail. It was endorsed by the railways as a way of getting out of crippling debt burdens. Sweden was the first to adopt separation.

It is still difficult to see any benefits either to the railway systems or to rail customers.

Advantages? An infrastructure that is virtually free to a train operator (e.g. Sweden) is, of course, very attractive to the train operator - if the government and electorate will agree to it. Otherwise

Disadvantages? Track is a much larger part of rail costs than in other modes. In an operating or production sense, the track looks much more like a part of the business than with other modes - rather like machines in a factory. Rail investment involves choices and trade-offs between track and trains.

Some railwaymen are becoming more articulate on the reasons why the track needs to be kept closely associated with the trains. The railways widely admired - in the USA and Japan - have kept track and trains together in the one prime company - allowing trains belonging to other companies to use the tracks on a commercial basis - and no question of "on the same track" competition.

Infrastructure charges

Is the infrastructure manager to be a kind of highway authority, or a commercial enterprise, or something uncomfortably in between - the answer implies very different approaches to infrastructure charges. For instance marginal costs might work for the highway model, but not for the commercial model.

Road charges based on marginal costs will, we are told, more than cover total road costs. Rail charges based on marginal costs will, we are told, fall substantially short of total costs. How far is a government willing to make up the shortfall and how far is the shortfall going to be made up by charging more than marginal costs?

It is understood that in Sweden the infrastructure charges form about 10% of Banverket's income, and the remaining 90% comes from the State. The charges are fixed by reference to road charges (not themselves notably low in Sweden) which results in rail charges that cover only about 50% of the maintenance costs - i.e. they are less than marginal costs.

In Italy the infrastructure manager considers the train operators as "clients", but by statute the infrastructure manager is a non-profit making organisation.

With a fixed form of charging, what is the mechanism for transmitting the market pressure from the end customer to the infrastructure manager to ensure that the infrastructure manager does not just "sit on his bottom" and "jack up the charges" to cover rising costs, but is constantly striving to reduce costs and hence charges?

Once the level of infrastructure charge moves above a zero or minimal charge, is it likely to produce any perverse effects? There has been much discussion on whether systems favour the incumbents or the new entrants. There has been some discussion on whether a system allows a train operator to run additional trains at little extra cost, or not, and what the effects of this might be. But there has been little or no discussion on other effects. For instance kilometre based, cost based systems may well give the same cost for a freight train as for a TGV. A TGV may well bear this level of charge, but a freight train may not. What will be the effect of this in terms of encouraging or discouraging certain types of traffic? Should there be differential pricing to achieve the right traffic mix or certain policy aims, and if so in which direction should the price be differentiated?

Should TGV's be priced higher because they need a much higher track standard than a freight train? Or should TGV's be priced lower because they eat up a lot less capacity than a freight train? Or should a TGV pay more because it will bear a higher charge, and a freight train less because it will not? Clearly different pricing relationships will have different consequences, so what should be the objective of the charge, and will the objective be met?

In reality some of the aspirations of infrastructure managers to carry out marketing of rail services, in which their charging structure and charging levels will figure largely, are likely to be academic. It is the area served, and not the infrastructure manager, which will set the core pattern of trains. Astute marketing and subtle pricing are unlikely to significantly change the character of a rural passenger line, a suburban line to a capital city, or a freight only line in an industrial area.

Road versus rail

Efforts to find figures to support the idea that rail was likely to be more competitive than road over a longer distance were not successful. We are going to have to dig deeper to develop a less superficial, less simplistic understanding of both road and rail transport.

The efforts to find the figures did, however, begin to put the old simplistic, comfortable, "road versus rail" competition theory into perspective. Much more work needs to be done, but it became evident that the competition between road and rail is in fact very limited indeed. Furthermore, whilst it is evident that road can compete for every rail movement (though the impact of the heavier movements on some communities may be unacceptable) rail can by no means compete for every road movement. So there needs to be a much better understanding of the markets. Road transport has created its own particular markets in the way that rail once did, and they are markets which rail cannot enter. There must be a realisation that national economies cannot do without road traffic, and it is wholly unrealistic to think of rail as a substitute. However traffic development is about a lot more than just competition between two modes. Rail still has the capacity to create its own markets - high speed and combined transport for instance - and rail has its own vital rôle to play. The best use must be made of the strengths of both modes.

Monopoly

That rail is a monopoly is one of the great myths. Rail may have its own tracks, and there may have been, until now, only one railway company using the tracks, but that did not make it a transport monopoly - far from it. As set out above, track and trains are much more closely associated than is the case with the other modes, and no-one complains that car manufacturers own their own factories or steel works their own blast furnaces. There must be very, very few captive rail customers. Everyone has a choice somewhere. It may not be a simple question of a choice between transport modes, and the fact that it is a very tough choice does not mean that the choice does not exist. So no-one has to use rail. And very many do not. For those that do it is because the overall package is the best for them. The challenge for rail is to make them happier with the rail element of the package if that is humanly possible. But please, no more "monopoly".

So is there any good news?

Well yes there is. It is probably fair to say that up to around 1988 (the period of the first draft of 91/440, the separation of infrastructure from operations in Sweden, and Mrs. Thatcher's privatisations in the UK) the Transport Ministers of the 12 Member States, and the Directors General (and staff) of their railways, were largely "uncomfortably comfortable". Certainly there were the old thorny questions, the old conflicting demands, the old difficulties in making the income meet the expenditure, the old problem of what to do when inevitably it did not, but the answers were the same old answers too, and the situation had a familiar feel. Some were more comfortable with this unsatisfactory but familiar situation than others. Some made determined attempts to change this situation, but it was all very difficult and the results were only limited in the end.

After 1988 that all changed. The railway world was turned upside down, accepted truths were challenged, uncertainty came in, and no-one felt comfortable any more. Where radical

change had been impossible before, it was possible now, opening up the potential for change for the better.

But has the possibility been capitalised on, has there been any change for the better?

Great Britain went furthest down the radical road and the new arrangements have been in place for long enough now for some early observations to be made. In a situation which still looks very messy, after the accident at Hatfield some would say frighteningly so, there are three potentially positive elements:

- 1) Passenger traffic increased in a totally unforeseen way, and apparently beyond a level that can be explained by economic conditions, fare restrictions, or increasing road congestion.
- 2) The government has been willing (some would say has been forced) to put more money into railways.
- 3) New management and new staff at all levels have been introduced to the railways. This was the kind of change that was quite impossible under the old government favoured, electorate endorsed, trades union influenced, nationalised industry climate, and was nevertheless very, very necessary. At this point it is appropriate to focus on the Train Operating Companies. At the train and station staff level, whilst there were some unfortunate results initially, and may still be some more to come, there are some small encouraging signs of a positive change. At the top management level, as time goes on, it is possible to see that there may be the beginnings of a better balance between imaginative commercial management and solid operating management, as opposed to the predominantly solid operating management that is the hallmark of railways almost everywhere.

But that's not very much is it?

No, sadly the opportunity for change in the EU has been squandered. The changes are being introduced along superficial, dogmatic, political lines, without adequate investigation in depth, without adequate knowledge of the industry, and without an adequate appraisal of the likely outcome. The overall consequences are more likely to be negative than positive, unless the moment is seized and the process is turned in a more convincingly well informed, productive, and positive direction.
