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THE EUROPEAN INTEGRATION OF RAIL FREIGHT TRANSPORT

Conclusions of Round Table 125, Paris, 28-29 November 2002

Chaired by A. Bonnafous (F), it was introduced by reports from G. Aberle (D), S. Bologna (I), T. Fowkes and C. Nash (UK).

The main conclusions of the Round Table are set out below.

1. Introduction

The many empirical studies that have been conducted during the nineties on the interrelationship between growth in transport and aggregate economic growth, have shown that the elasticity of road freight transport services with respect to aggregate income is greater than one. These trends will be exacerbated by the adjustment processes associated with the EU enlargement. Many observers share the view that the dramatic increases in freight transport cannot be accommodated by the contemporary road freight system, given current congestion levels and given the current limits to the extension of the road infrastructure. On the other hand, absolute rail freight transport volumes have been stagnating at best. Comparing what is observed in Europe with statistical data of other continents, it is obvious that the weak position of rail freight is peculiar to Europe. The consequent question, whether the fact that the European railway system remains largely fragmented along national boundaries is the basis of this negative diagnosis, has motivated the 125th Round Table. It discussed the empirical trends of rail freight in Europe, how these trends should be evaluated and what role the integration of European railways should play to improve the competitiveness of the railways vis à vis the road transport sector.

2. Arguments to be treated with caution

In the debate on the competitive position of the railways, and the trend of rail transport, a number of arguments are traditionally put forward. The Round Table looked at a number of them.

2.1 Modal decline

The statistical evidence was recalled: when one looks at the trend over time, it is clear that road freight transport has steadily taken market share from rail and inland waterways, but while the latter mode is resisting, in 2001 rail had less than 50 per cent of its modal share in 1970 (31 per cent). Measured in tonne-kilometres, rail traffic in western Europe in 2001 was barely above that in 1970.

Admittedly, the choice of reference year is open to discussion. Should one go back further than 1970, to 1950 for example? When one goes back that far, it is seen that rail freight transport actually grew, but that the growth of road transport was even more phenomenal. On the other hand, it may be considered that it is not relevant to take a time-frame of more than fifty years, since, while it is true that rail transport grew, the industrialised economies and standards of living made considerable leaps forward during the same period.

With rail freight transport at best only managing to hold its own in a rapidly-expanding transport market, the whole question of the specific market for rail transport arises. Traditionally, structural effects are distinguished from competition effects. Rail transport undeniably has a strong propensity to transport heavy goods (for example, steel products) which are produced by industries that have all undergone restructuring and whose weight in the developed economies is steadily shrinking. The growing service content of the developed economies is not favourable to rail, which is much better at transporting primary and secondary products. However, some experts at the Round Table argued that modelling and careful analysis showed that rail has lost ground even in its traditional markets, and the competition effect has compounded the structural effect; rail has proved unable to take up the challenge from road transport, even in its core markets.

The growth markets for transport are those that have been fuelled by European construction. When one looks at transport activity over the past thirty years, one sees that it is not so much tonnages that have increased but transport distances. It is known that rail freight transport is particularly suited to long distances, over which it enjoys intrinsic economies of scale. The poor performance of rail in these markets is thus all the more surprising. Clearly, the challenge for rail is to capture a share of the growth of these markets, so that its activity also grows.

Some experts pointed out that the rail network does not represent more than 5 per cent of the total road network in Europe. However, this argument also needs to be treated with caution since in France, for example, the motorway network represents only 4 per cent of the road network. Yet it is the motorway network that is used by the road hauliers who are in direct competition with rail. When one compares the two figures, one sees that the disparity between the networks is not as big as it would seem at first sight.

Another question may be raised in this connection -- that of market contestability or, more exactly, the market share of rail freight transport in markets which are contestable by rail. But this argument is hardly to the point, since very few markets are directly contestable by rail.

A market is contestable when, because entrance costs are low and recoverable, competitors can enter it. But apart from the case of private branch lines, however, the entrance costs for rail transport are not low and not easy to recover, mainly because of the cost of purchasing locomotives. The freight market does not lend itself to an analysis of contestability by rail transport. But, on the other hand, practically all rail markets are contestable by road or inland waterway transport. Contestability is used to argue that there is no need for effective competition since potential competition produces the same effects. This being so, and given the weaknesses of rail transport that will be analysed later on in detail (see 3.2 on the failure of traditional rail undertakings where freight is concerned), it proves that the demonstrated contestability of the rail market has not produced positive effects. To a large extent, rail undertakings have behaved as if they had captive customers and have not looked for new markets. They have found it difficult to contest new markets but have not drawn the lessons from the contestability of their own market, which ought to have prompted them to adopt aggressive commercial strategies and constantly to improve the relevance and quality of the service they provide. To conclude, taking contestable markets in which rail has a strong position merely amounts to limiting the market for rail in order to say rail has a dominant position in it. There is an obvious flaw in this reasoning which goes a long way to explain the difficulties of rail freight transport, and which the experts at the Round Table did not fail to point out.

In economies that are constantly changing, firms are born and die, and industrial areas spring up. Though there are wide disparities in this respect, such areas are not always served by rail. This is particularly true of the new ECMT Member countries, and it partly explains the collapse of rail freight transport in the former eastern bloc countries. Thus, even if rail does not have the same universal network as road, the experts pointed out that it does have a specific market in which it has undeniably lost ground.

2.2 *Internalisation of external costs*

Road transport generates numerous negative externalities, such as local air pollution or greenhouse gases, which are not properly reflected in the price of using roads. This argument is put forward by the advocates of rail transport. They argue that the benefits rail transport brings to the community are not reflected in the prices of that mode. This argument has gradually lost its force, however, since studies have shown that road freight transport in Europe was not far from covering all of its external costs, a position that was endorsed at the Round Table. It was argued that the proportion of external costs that is not internalised is actually very limited, and that it could be covered by -- at the most -- an increase of less than 10 per cent in the price of road transport.

Bearing in mind the cross-elasticity of rail traffic with respect to the price of road transport, which at best is 0.6 per cent, a 10 per cent increase in the price of road traffic would increase rail traffic by 6 per cent at the most, corresponding to 1.5 per cent of road traffic given the modal split. It is thus seen that, on the most optimistic assumptions, an internalisation of the external costs of road transport would not transfer to rail even one year of the growth of road traffic in Europe (which averaged over 2 per cent during the period 1970-2000), and would correspond to two years of dynamic growth of rail freight transport. These figures show that the gains that can be expected from an internalisation of external costs are not commensurate with the challenges facing the railways.

It is also necessary to set this reasoning within a dynamic perspective: the environmental performance of road transport has been steadily improving, thanks to the technical progress made on engines, transmissions and fuels. This means that in ten years' time, leaving aside the greenhouse effect, the environmental balance of road transport will have improved still further and will be much less open to criticism. However, it is not sure that rail freight transport will make the same progress over that period. For example, as regards noise pollution, rail transport is particularly unsatisfactory. Moreover, diesel traction makes an appreciable contribution to the greenhouse effect and local pollution, as does electric traction when the electricity is thermally generated. Some experts at the Round Table even argued that rail freight transport offered only very slight advantages over road transport, and that they would be wiped out ten years from now.

It is not possible to reach any clear-cut conclusions on these issues. Much research is still needed. However, it is clear that the gains that can be expected from internalising the external costs of road transport are not commensurate with the challenges that the European railways must overcome merely to maintain their modal share.

2.3 *Capacity saturation*

Traditional rail undertakings argue that their networks are saturated and that they cannot carry any more freight. This argument also needs to be treated with caution. Firstly, it should be pointed out that the amount of freight currently being transported is no greater than it was in 1970. Next, the saturation of the network and the shortage of locomotives are said to explain the disquieting number of freight train delays. Thus, more than 70 per of trains are delayed in the very sensitive trans-Alpine market; yet new private companies with different organisational set-ups have started to operate on these routes, and less than 20 per cent of their trains are delayed. The Round Table experts pointed

to these figures as confirmation of the argument that the saturation of infrastructure was largely due to the inertia of the incumbent networks and their inability, for example, to change the safety and administrative procedures for freight convoys. In the view of some experts, these networks were administrations hidebound by rigid procedures that prevent any improvements, especially at border crossings. It may also be asked whether the problem of interoperability is not more a problem of administrative procedures than a technical one -- since bi-current locomotives are available -- with each network seeking to preserve its own procedures. In any case, some experts were emphatic that what the railways were lacking was an overall concept of forwarding.

But, leaving aside the aforesaid problem, it is nonetheless a fact that there are portions of the European rail network on which capacity is stretched to the limit. However, the experts stressed that the railways' concentration on major projects such as the construction of new lines rather than on specific investments like sidings, was a factor in the saturation of the networks.

2.4 *Separation of infrastructure and operation*

This is a topic of much discussion in Europe, and the Round Table did not address it specifically but confined itself to recapitulating some of the arguments. Some experts argued that the integration of rail undertakings had had catastrophic results where freight was concerned, and that the shortcomings of the service provided were reflected in the shift in the modal split referred to earlier. Others considered that the separation of infrastructure and operation meant high transaction costs and thus a rail system that was much more complex overall.

It should be borne in mind, however, that higher transaction costs can be offset by overall efficiency gains. If each enterprise sets itself clear objectives instead of a large number of goals, most of which are incompatible, then it can concentrate on achieving its targets so that overall efficiency would be enhanced. The allocation of timetable slots on a contractual basis to different operators should not be seen as an insurmountable problem. Observation shows that in areas such as the car industry, complex ties are forged between firms, ties that are often very remote, and that just-in-time methods ensure that everything works. Regulating such set-ups is probably no more complicated than regulating the rail system, and yet the partners are independent and bound to one another contractually while, at a practical level, the whole is held together by the most advanced information technologies. Some experts accordingly thought that while it is true that separation generates costs, it can also be a factor of progress.

The conditions of employment in rail and road transport are converging very slowly; that said, road freight transport has made considerable productivity gains in contrast with rail transport, in which they have remained flat. In addition, the logistical service provided by road transport, which seeks to match price, time, reliability, availability, adaptability, information, variety, etc., is quite different from that of thirty years ago, while that provided by rail still has many shortcomings. Promoting the separation of infrastructure and operation involves identifying directly the various tasks in the rail sector and assigning tangible objectives to them. Coupled with an effective commercial policy, it can make the railways better equipped to meet the needs of users.

3. *The lessons of experience*

3.1 *The failure of traditional rail undertakings in the freight sector*

The decline of the rail freight sector and the accompanying changes in the modal split have been described. The experts at the Round Table argued that traditional rail undertakings have suffered from a number of shortcomings -- poor quality, failure to innovate, lack of investment, organisational

shortcomings, lack of a commercially-minded approach, to which one could add many others in the case of freight. The poor quality of services has been a more crucial factor than prices. Where logistics are concerned, the slightest one-off hitch in the service provided can suffice to make customers shy away permanently from rail. The effects are thus long-term, since customers make their logistical arrangements for the medium and long term.

International freight transport has likewise failed to evolve. National monopolies have transported freight up to their national borders and then passed the baton, as it were, to the next national railway. Railways have failed to take on board the changes that have arisen since 1958. They have continued to superpose steadily declining services while shippers have moved on to just-in time delivery and an integrated approach to logistics. The patchwork of disparate national services and different infrastructure user charges has made the whole system opaque, and made it difficult to become a market leader in expanding markets.

The lack of transparency of these undertakings, their opacity, has made any top-down reform virtually impossible. The paradox has been that the possibility of any bottom-up reform, from the grass roots, has been prevented by the lack of social dialogue. Rail undertakings have seen their objectives politicised and have not been free to find their commercial bearings on their own.

The example of Norway was cited during the Round Table. Despite the steep rise in road taxes, and despite infrastructure charges equal to zero and the relative disappearance of the over-manning that was detrimental to productivity, rail has lost market share precisely in those market segments in which it had an advantage (long hauls, heavy goods and none of the obstacles found in the international market). There is no point insisting too much on these matters, and the Round Table did not do so, as they are familiar to anybody who is not blinkered by theory and is willing to see things as they are. A certain type of past behaviour has no future, but these issues retain all their topicality, given the subsidies that the European rail networks still receive.

3.2 *The case of rail privatisation in the United Kingdom*

The Round Table experts who examined the privatisation of the railways in the United Kingdom considered that, despite all the problems that had arisen with Railtrack (which was responsible for infrastructure), privatisation had worked for freight. Rail freight had risen to levels that had not been seen for a long time, and not only in traditional markets (coal, construction) but also in new markets such as port access, agriculture, steel and food. The overall growth of rail freight has been very large, to a point where the modal split has shifted in favour of rail freight. In addition, new markets have also been won over short distances, a market in which rail transport was traditionally not present. Privatisation has unquestionably had a positive effect on the level of investment and the quality of service, and operating profitability has accompanied timely risk-taking. Infrastructure access has benefited from the separation of infrastructure and operation and the presence of an independent regulator, even though it may be considered that not all the problems have been resolved.

For example, subsidies are still allocated to rail freight transport. However, when a deflator is applied to the nominal amounts, it is seen that subsidies have not really increased and that, in real terms, their overall amount is still well below that allocated to some sectors in Europe.

It should also be added that rail freight had already been rationalised before privatisation and that single wagonloads had also been abandoned, which meant that privatisation did not have to bear the cost of the necessary adjustments. All the problems have not been resolved, however. For example, the very steep growth that was predicted in international traffic via the Channel Tunnel has not materialised. Numerous incidents have beset the Tunnel's operation. Another difficulty has been finding buyers for the companies up for sale.

However, some experts argued that, despite everything, when one looks at the overall balance for the UK's experience with the separation of infrastructure and operation and privatisation, it is seen that the reform has created more wealth than it has destroyed. The same cannot be said for all European rail undertakings over the same period. It is thus not proven that separation cannot be made to work.

4. The conditions for recovery

4.1 *Agreement on the diagnosis*

To start with, nothing is possible without agreement on the diagnosis. Arguing that everything is fine merely prevents one seeing the ills that beset the traditional railway undertakings. It is essential to realise the true extent of those ills. Furthermore, banking on the construction of freight-dedicated lines that would take ten to fifteen years to build is not a solution. On current trends, in fifteen years' time, if nothing is done, rail freight will have practically disappeared. Major projects are thus not the remedy, instead we should try to do better with what exists. The Round Table considered, however, that it was not certain that it would be possible to remove all the constraints on rail with the enterprises that have been bequeathed by history, and underlined the need for new entrants in a market governed by transparency.

4.2 *The need for transparency*

In the view of the Round Table experts, the current rail system has become excessively complex. Opaque technical, legal, administrative, social and operating rules, coupled with opaque accounting, make it difficult to set priorities. True, the separation of infrastructure from operation, at least at the accounting level, marked a first step forward, but it does not ensure that rigorous and fair rules are applied, for example, as regards the allocation of train slots or the charging of infrastructure fees. The fact that responsibility for the allocation of slots has been given to an independent body by the most recent EU directives, plus the open access that will come fully into force in the European Union as from 15 March 2003, are thus to be welcomed. The various actors must be obliged to play the game according to transparent rules. While it is true that it is difficult to request commercial information from a competitor, for example, it is essential that accounts be transparent. Similarly, at another level, the allocation of rail slots should not be done in a secretive, arbitrary manner but in accordance with open procedures that are open to challenge. Many examples can be given of the sectors in which the rail system needs to become transparent if it is to evolve. In this area, resolute policy action is required. Transparency is the prerequisite for neutral conditions of operation -- such neutrality always being to the benefit of the community.

4.3 *New market entrants*

The possibility of free access to the EU network has been little used up to now: in practice, substantial barriers to entry have continued to exist, and the lack of transparency of the rail system in particular has played a dissuasive role. Up to now, a clear signal that there is free access to infrastructure has not been sent to the various actors in the freight transport business and their customers. But those new enterprises that have emerged (for example, IKEA and Connex), have done much better than the traditional networks. The Round Table thus argued that intramodal competition was much more important than intermodal competition for revitalising rail freight. Irrespective of the sector, competition has always had a positive effect on prices and quality of service, two areas in which the railways have fallen down. The productivity of traditional undertakings could also be

improved by competition. Terminal operation could also make a qualitative leap with the arrival of new entrants.

It is quite possible that new entrants will concentrate on a few specific niches, leaving the traditional rail companies to operate their networks. Some experts considered that there was not room in Europe for a large number of operators, but this view was not unanimous, since infrastructure managers will want to attract new enterprises precisely to maximise infrastructure use. Furthermore, with more competition in the freight transport market, the size of the rail freight transport market could increase naturally. The capacity that each enterprise would need on the network would send a clear signal to infrastructure managers about investment needs. A politicised ad hoc approach to investment would thus give way to a rational approach, whereby investment needs would be determined in the light of market developments.

The facts seem to prove that new companies can overcome barriers to entry without too much difficulty, notably by concluding agreements with the owners of private wagons, and with maritime transport or port infrastructure operators for combined transport. It is thus quite possible that traditional carriers will have to face new competition. Rail undertakings may also seek to exploit the transit function of certain countries. The potential opportunities are enormous, and should lead eventually to a redrawing of the European rail freight map. The risk for some undertakings is that they will find themselves confined to a traction function. Is this why some traditional rail companies have recently acquired companies specialised in global logistical services? It is tempting to think so. However, these acquisitions will not necessarily give rail transport a greater role since the companies taken over tend to use modes that are in competition with rail. The synergies of these costly acquisitions with rail transport remain to be demonstrated. Furthermore, if these acquisitions are funded directly or indirectly with public subsidies, the conditions of competition are distorted in markets where competition is fierce. Vigilance is therefore called for; it may be thought that traditional rail undertakings ought to have started by learning to provide top-class services in their particular area of expertise rather than to have rushed into a market in which they are not equipped to compete on their own.

On the basis of an overall assessment of the situation, the authorities should aim to promote the emergence of competition on the rail network and to ensure neutral conditions of operation. Given the importance of the stakes, an independent impartial regulator is called for to allocate train slots, ensure fair pricing of infrastructure, regulate capacity, ensure compatibility with safety requirements, etc. In particular, no special “vested rights” should be accorded to incumbent operators. Each enterprise must have the same opportunity to do business on equal terms.

5. Conclusions

The main question to emerge from the Round Table discussions was whether the privatisation of rail freight should not be envisaged once neutral conditions of operation have been put in place. There is no fundamental reason why rail freight should be state-run and financed out of public funds. However, given the economies of scale of the rail system, rational marginal cost pricing leaves some costs uncovered. It is thus probably necessary to provide subsidies. But they can be given to infrastructure managers or to the rail companies’ customers for using a mode which still offers environmental benefits. The option of privatisation should not, therefore, be ruled out by policymakers.

The question of privatisation raises directly the problem of the conditions of employment of the personnel of rail undertakings, though appropriate responses have been found in other sectors. The absence of a body of European social law applicable to rail undertakings is a major drawback and illustrates the extent to which rail systems were built within national borders without regard for wider considerations. There are thus gaps that have to be filled.

Lastly, the lively discussions and argument during the Round Table showed that impartial bodies are needed in Europe to rule on crucial questions. For example, the differences of view on the United Kingdom's experience with rail privatisation attest the need for a very high-level authority that can hand down authoritative opinions. This would help to clarify and raise the level of the debate, this being a prerequisite if the situation is to evolve in a direction which does not prompt opposition and which is acceptable to public opinion.