

Shaping the Railway of the 21st Century

Remarks by Louis S. Thompson
Railways Adviser
The World Bank
June 19, 1997

We should never be confident when talking about the future. In fact, it is hard enough to understand the present, much less be sure of what may happen in the next decades. We need only ask ourselves what would have happened at the UIC's first anniversary if a madman had predicted World War II, or the rise and decline of central planning, or the creation of the EC, or any of the other world-shaping events since 1922. A technological seer predicting dieselization, TGV's, the impact of the computer revolutions, GPS satellites, SST's, superhighways and two automobile families would have received the same reception.

With this in mind, though, there are some trends of long duration, and some pressures of shorter time scale, that are clearly at work in the transport arena. Allowing for the dangers of generalizations, we may safely be able to say some things about the railways of the 21st Century. I believe we can speak of five broad ideas that will influence the development of railways in the next few decades (beyond that I cannot guess).

Financial Pressures and Globalization

The overarching theme when looking at railway change is the pressure which all governments are feeling on their financial resources. As economies have become ever more closely linked, governments have lost their ability to pursue disparate economic policies concerning domestic subsidies or social policies. In addition, globalization puts enormous pressure on economic efficiency in transport: economies which do not have effective and efficient transport simply lose out. Acting together, these pressures are forcing railways to become more efficient and more effective, and to reduce their burden on public finances. The days in which the railways of Japan will be allowed to amass a debt of US\$ 250 billion are gone, as is the idea that DB would be able to accumulate debts of hundreds of billions of DM. Railway deficits and capital needs of one to two percent of GDP, or larger, used to be common, but those days are surely over as well.

Institutional Change

It is a mistake when talking about railways passengers to be either Eurocentric or America Centric. In fact, China (19%), India (16%) and Japan (14%) together carry nearly half the world's rail passenger traffic, and they each carry more than all of Western Europe (14%). In the rail freight arena, China (19%) and India (4%) carry more of the world's rail freight traffic than Western Europe (3%), although we must also acknowledge that Russia (26%) and the US/Canada (31%) are the largest rail freight carriers.

Taking this world view, the issue of railway institutional change has a large number of facets. Today's railways range from the traditional monolithic railway ministries in Russia, India and China to the wholly private railway of New Zealand. It seems clear that the day of the monoliths is over and that the next few decades in Russia, India and China will at least see the formation of state-owned rail enterprises operating under commercial law. In addition, these enterprises will adopt the tools of modern commercial management including profit centers and financial accounting. They will probably look closely at various options of restructuring including infrastructure separation and creation of special purpose companies to serve particular markets.

Many of the railways in Europe, including those in countries hoping eventually to become part of the EC, will take advantage of the infrastructure separation model propounded by the EC. They will totally separate passenger services from freight and infrastructure operations. They will also shift more and more operating (and financial) responsibility for local services to local governments who are better equipped to define and serve local needs. The railways of the middle East and North Africa may follow a similar path.

The railways of Africa and Latin America are already employing a different model in which infrastructure ownership remains in the government domain but operating responsibility is shifted to others. Railways of North America are, and will remain, largely in private management.

The Role of Markets

There is no more striking phenomenon than the near universal adoption in the last decade of the market model of economic organization. This is of course a relative statement, with some governments retaining larger roles in regulation and in social and defense sectors than others. This said, the norm of industrial organization is now the enterprise operating under commercial law, as this is the best way to produce competitive goods in services in national and international markets.

Railway enterprises are going to face ever more sophisticated and differentiated market demands. Freight customers will want reliable and tailored services using specialized equipment and they will not be satisfied with the traditional take it or leave it approach. In many cases, the distinction between railway and customer will be increasingly blurred with customers owning facilities and equipment and railways serving effectively as "conveyor belts" within far flung customer manufacturing and distribution activities.

The "market" for suburban and commuter services will be equally demanding. Major cities are all different, having distinct income levels, population distributions, congestion patterns, and employment requirements among many other characteristics. It is increasingly difficult for a national railway to serve these distinct markets, and it is almost certain that they will stop trying, instead shifting at least planning and service definition responsibilities to local and regional authorities.

Perhaps the single rail activity under the most severe competitive attack is intercity passenger rail. Sandwiched between the private automobile with its cheapness, instant availability, ubiquity and independence on the one hand, and the airlines with their speed and lower cost on the other hand, the railways will see their market share under attack. High Speed Rail might stem this trend in certain areas, but at high financial cost. Increasing congestion and higher fuel prices (in the US, especially) might also improve rail's position, but the railways face an uphill fight to retain their share.

Better Use of the Private Sector

We are now witnessing a dramatic shift in the traditional belief that rail operation, as distinct from infrastructure ownership, is somehow uniquely suited, or assigned, to the public sector. Operation of the railways of Latin America has almost totally been shifted to the private sector through concessions -- and this includes the suburban passenger services and Metros. Concessions can be either positive (with payments from private concessionaires to public owners), or negative (with payments from public owners to private operators). Either way, the public owner benefits from competition for the market in rail services and receives dramatic benefits from increased efficiencies. For example, in Latin America, the labor productivity of rail concessions is already four to five times higher than when under public operation, and the quality of services is much higher.

Events in the UK, Canada and New Zealand (and in Cote D'Ivoire/ Burkina Faso) show the wide scope of this trend. All rail operations in the UK and New Zealand are now in private hands, including control of the infrastructure. Results in New Zealand and Cote D'Ivoire are quite similar to those in Latin America and, though the experience in the UK is still fresh, initial results are positive (though mixed). There are open discussions in many other EC countries (and in the CEE countries as well) of following at least some of the approaches used in Latin America or the UK.

Environmental Factors

Railways are said to be environmentally friendly and, in the right circumstances, they are. It is also vital to acknowledge that the potential advantages of rail can be dissipated through poor operation or inappropriate application. Also, the actual cost of achieving rail's energy savings or pollution reductions can be extremely high if operations are inefficient or technology is inappropriate. Railways' potential role can also be vitiated if competing modes are subsidized so that rail is not allowed to make its best offer.

Thus, environmental factors are going to be a double edged sword for railways. On the one hand, growing pollution and congestion, and increasing energy prices, and potential carbon taxes, will highlight the positive role of railways and create an opportunity for larger markets and increased public investment. On the other hand, governments are increasingly going to insist on getting value for money, and railways will have to work harder to deliver on their promise.

Interesting Times

It would be hard to write a better summary of the problems of the European Railways than the recent Commission White Paper "A Strategy for Revitalizing the Community's Railways." Exactly similar analyses were published in the United States a little more than decade before when the failure of Government regulation had become apparent. The analysis of the Argentine Government leading up to their concessioning effort has many phrases identical to those from European and US documents. There was a World Bank document in 1982 -- "The Railways Problem" -- in exactly the same mold. All of these reports reached the same general conclusion: that railways had to become independent enterprises, market organized and market driven.

We now have remarkable experience from the US since deregulation, from Canada since sale of the CN and from Latin America and New Zealand since concessioning to prove that the "railways problem" can be solved, or at least alleviated. We also have experience showing that such change is a difficult and expensive process.

I am an optimist. I believe that railways and governments want to have good transport service, cost effective and environmentally sensitive. I am convinced that railways have a major role to play. I believe that proper attention to the issues above will ensure them that role and that, at the 85th anniversary of the UIC, which I hope to attend, we will congratulate ourselves for having played a role in strengthening that role.

We are fortunate in having had the UIC as a champion of railways. I can only urge that the UIC itself change along with its members. The challenges mentioned above are unusual for their emphasis on institutions and market forces -- and not on technology. When we attend the UIC's 85th anniversary, I predict that we will see a organizationally focused, market-driven UIC as well.

C:\0bank\ircauc\uic75th.doc