TO WHAT EXTENT CAN REGULATORY AND STRUCTURAL REFORM IMPROVE PERFORMANCE FOR EAST AND CENTRAL EUROPEAN RAILWAYS?

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Many East and Central European railway companies enjoy increasing freedom in areas such as the setting of tariffs, labour, the use of private capital to fund investment programmes and the setting of service levels. In fact, reform has come to be seen by many as a panacea for greater efficiency. However, generic prescriptions of essential regulatory and structural changes may not always be appropriate given that key regulatory drivers for commercial and operational performance improvement vary from railway to railway. In an era when rail companies are increasingly relying upon private capital to fund large projects it is important that financial houses are sure reforms are being effected in areas that provide scope for sustainable performance improvement, and can be effective in a given environment.

1 INTRODUCTION

This paper explores the issues relating to structural and regulatory reform in East and Central European railway companies and probes the issue of how effective these reforms are in practice compared with other drivers that affect each railway. The paper is structured in the following way. Section 2 describes the reform proposals that are currently being promoted for railway companies. Section 3 assesses the extent of reform in Central East Europe (CEE) and offers a considered, approximate grading of each railway's progress towards adoption of market economic principles. Sections 4 – 6 consider whether railways with the greatest level of reform can be said to exhibit better performance in the areas of asset utilisation, efficiency and financial effectiveness. The influence of other factors in driving business performance is also reviewed. Section 7 concludes the paper.

2 REFORM – THE PANACEA FOR RAILWAY PERFORMANCE IMPROVEMENT?

An examination of the commercial structure of Europe's railway companies over the last century offers a useful commentary on the reforms, initiatives and economic theories that have held sway at different times during the period.

The majority of railways were initially built and operated by private companies. Following the initial speculative boom a lack of capital investment combined with ineffective regulation, a lack of co-ordination and a drive for social equality (see Ashmore and Lawson, 1997) led to the vast majority being passed into state hands by the middle of this century. This was typically either part of a nationalisation programme or under the controlled economies of the former Eastern Bloc. Under state ownership, the railways theoretically gained access to investment funds but long term funding in capital projects was not always possible to guarantee and this led to short term (typically yearly) tranches of funds that were not commensurate with the lengthy time framework associated with most rail projects. At the same time the imposition of bureaucratic structures and state regulations led to a stiffling of commercial initiative and many railways became characterised by low levels of labour productivity and a lack of commercial acumen.

In the later part of the Twentieth Century these negative impacts combined with the effects of cheaper road transportation progressively eroded the financial position of the railways. In tandem with the re-emergence of free market doctrines, the collapse of the Eastern European command economies there arose calls to reform Europe's railways. This reform has broadly taken two forms:

- Liberalisation/ Commercialisation – the freedom to make commercial decisions without political interference, in matters such as the setting of tariffs, the setting of service levels, procurement, investment strategy and labour needs.
- Structural reform – the separation of the industry into business units that have differing roles and economic characteristics. The typical split is between infrastructure and operations, but can also extend to passenger operations, freight operations, intercity lines, local services, rolling stock maintenance and separation of non-core activities such as parcels and catering.

The first area of reform relates to the fact that many railways are seen to perform poorly in terms of cost coverage and efficiency because, broadly speaking, the state for political reasons:

- forces them to charge tariffs to passengers and freight customers insufficient to cover costs,
- constrains them to operate uneconomic service levels and keep lines open as part of an unfunded public service obligation,
- is unable to provide the commensurate sums of money for investment and maintenance,
- forces them to retain more staff than is necessary for present levels of demand,
- forces uneconomic investment decisions upon them such as procurement from indigenous suppliers in economic difficulties.

The rationale behind structural reform this is that differing skills and resources are needed to optimally manage what equate to very different businesses. Establishing a series of customer/ supplier interfaces within the organisation helps to clarify objectives and an economic case for each part of the business. State direction to achieve social and economic policy objectives are accommodated by contractual relationships.

Besides the need to reduce public expenditure and stem a rising level of debt within each country, a major driving force behind a great deal of these initiatives was European Community Directive 91/440 (European Commission, 1991) on the development of the Community's railways. This stipulated that the efficiency of the rail system across the EU should be improved in order to integrate it into a competitive market. The Directive states that to render railway transport efficient and competitive, compared with other modes of transport, member states need to guarantee that railway undertakings are afforded the status of independent operators.

Article 5 of 91/440 states that:

> Member States shall take the measures necessary to enable railway undertakings to adjust their activities to the market and to manage those activities under the responsibility of their management bodies, in the interests of providing efficient and appropriate services at the lowest possible cost for the quality of service required. Railway undertakings shall be managed according to the principles that apply to commercial companies; this shall also apply to their public services obligations imposed by the State and to public services contracts which they conclude with the competent authorities of the Member State.

In Eastern Europe railway companies are seeking to modernise in order to achieve convergence with the criteria for eventual EU membership. Ten nations have applied for membership and one of the key transportation goals of the union is to use railways to promote inter-regional trade and speed European integration by means such as the Trans European Networks (TENS). But much of the infrastructure in Eastern Europe is obsolete, fails to meet European standards and needs to be upgraded.

A sizeable proportion of the capital injected into East and Central Europe's Railways has come from International Finance Institutions (IFIs) such as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). Their primary criteria for funding is that projects should facilitate the transition of the industry into one which is financially sustainable and able to compete successfully in the market economy. Loans from development banks and commercial lending institutions always carry covenants relating to increased reform, the setting up of internal commercial management structures, the adoption of commercially driven business plans and increased private sector involvement by means of measures such as the outsourcing of non-core activities to private companies. In addition they usually require some form of state guarantee against default.

The implications of behind the above strategy are a belief that the performance of railways and rail's contribution to a national economy can be improved through the basic process of reform. Reform is seen as the primary lever that will allow railways to modernise and compete and whilst this may be true, there often appears to have been insufficient regard for other factors that may affect performance.

This paper does not question the conditions set by banks since these are primarily designed to ensure that the undertaking in order to lend money. What is debatable is the view that reforming the railways will automatically create "healthier" railways.

Only prescriptions based upon individual needs, and in the context of the operating environment, will allow bankers to have confidence that reforms are being enacted in areas that drive the business. They should also prevent the imposition of policies that have unforeseen social and economic implications beyond the railway. Although a narrow perspective might be acceptable for a mainstream commercial bank, it seems questionable given the broader remit of the development banks.

3 THE PROGRESS OF REFORM IN EAST AND CENTRAL EUROPEAN RAIL COMPANIES.

East and Central European Railway represent an excellent forum in which to examine the effects of reform over time. Under the communist regimes the railways were Government departments. Their main roles were to provide employment, to carry raw materials between each of the Eastern block countries and to offer passenger transport to the general population at low tariffs. As an integral part of the strategic infrastructure there was never any consideration given to a return upon investment. Relatively low levels of personal transportation ensured that rail continued to play a primary role in carrying people and goods. Freight traffic income generally cross subsidised passenger operations.

Since the fall of the command economies the position of the East and Central European Railways has deteriorated markedly. Traditional heavy industries, representing the core of rail freight demand, have declined whilst the railways have faced increased competition from other market sectors; deregulation of bus services and increased car ownership has reduced passenger traffic. Without the freedom from the Government to price services competitively and reduce the labour force, operating losses escalated rapidly forcing the railways into massive debt.

To facilitate entry into the European Union and loans from international finance agencies many railways are seeking to implement the terms of directive 91/440, but progress has been slow. The separation of infrastructure and operations accounts has been applied in the majority of cases, but in most countries the independence to set tariffs is diluted in practice by Government review and approval procedures. The legal basis for access to infrastructure has been provided in some countries, but generally national monopoly rail undertakings have been awarded rights. Table 1 gives a summary of the present position.

As can be seen the common corporate model is one of state enterprises with statutes significantly limiting commercial freedom, although there are one or two cases of state-owned joint stock companies. Only the Russian Federation still runs railways as a department of Government. The transformation of railways from Government departments to state enterprises (even with limited commercial freedom) represents an important step in the reform process.

By scoring each of the components in Table 1 it becomes possible to formulate a simple reform grading for each railway as shown in Table 2. Within this framework the Hungary appears to have made the most progress on reform largely driven by their status as a state owned, Joint Stock Company and the presence of a contract with the state for the operation of public service obligations. In point of fact, Hungary, Poland and the Czech Republic are generally seen as the most economically liberal of the former eastern block countries; between them the attract over 95% of external investment to the region. Moldovan railways appear to have made least progress; unsurprising given the state of civil war until 1995 and the continued dependence upon the highly politicised Ukrainian Railways.

Country	Summary	Separation of Infrastructure from Operations	Access Rights
Bulgaria	BDZ is a state enterprise with separate legal identity, but with statues that significantly limit commercial freedom. Public service obligations are covered by a contract with the state. The Minister of Transport supervises prices.	Accounts separated.	No legal basis.
Croatia	HZ is a state enterprise with separate legal identity, but with statutes that significantly limit commercial freedom.	Accounts are to be separated by the creation of two business units	Provisions only exist for the contracting out of services by HZ.
Czech Republic	CD, Czech Railways is a state organisation with separate legal identity, but statues that significantly limit commercial freedom. Maximum tariffs set by the Ministry of Finance, except for freight.	Separation of accounts and financial flows for infrastructure and operations implemented in practice.	Legal basis exists but no new operators yet.
Estonia	Estonian Railways Ltd, Edelraudtee Ltd and EVR Koehne Ltd are joint stock companies with separate legal identity owned 100% by the state.	Separation of accounts underway. Infrastructure subsidies to be provided by earmarked taxes in the future.	Non-discriminatory access rights exist.
Hungary	MAV is a joint owned stock company. PSOs are covered by a three year contract with the state. The Government controls and sets passenger tariffs.	Accounting was separated between the two divisions of MAV.	Legal basis for reciprocal access rights exist, though practical dispositions have yet to be determined.
Latvia	LaR is a state owned joint stock company.	Accounting separated in 1997, with organisational separation planned.	Limited competition for passenger traffic exists between public and private companies.
Lithuania	LiR is a state-owned joined stock company. From 1998 PSOs will be covered by a contract with the state. Freight tariffs are set by the company; passenger tariffs by the Government.	Separate business units have been established. Accounts to be separated shortly.	Access provided for by the railway code. New operators have to obtain a licence and to conclude a contract with infrastructure manager on the use a capacity.
Moldova	CFM is a state enterprise reporting to the Ministry of Transport, with legal identity, but statutes that significantly limit commercial freedom. International tariffs are improved by the Ministry, following negotiations between CIS and Baltic State Governments, and following bilateral accords with Turkey, Bulgaria and Romania.	There is no separation of accounts or organisation with no plans for charging for the use of infrastructure. Plans for separating infrastructure and operations are under examination.	No rights of access.
Poland	PKP, Polish State Railways is a state owned enterprise with management autonomy. PSOs are compensated in accordance with the budget and under an accord between the Treasury and PKP. The Government sets tariffs for passenger traffic and the transport of iron and coal where PKP has a dominant position.	From 1999 two separate organisations to be created within PKP.	PKP management is obliged to grant access to railway operators on the basis of mutual agreement and in the case of foreign operators, through inter governmental agreement.
Romania	CFR is a state enterprise with separate legal identity but statues that significantly limit commercial freedom under the authority of the Ministry of Transport. PSOs are covered by contract.	CFR is an integrated utility with separation at the level of business units.	Access allowed by law after consultation with CFR.
Slovakia	ZSR is a state enterprise with separate legal identity but statues that significantly limit commercial freedom. PSOs are covered by contract, but other legal provisions allow the state to delay payments due to state budget difficulties. Tariffs are controlled by the Government with the exception of freight rates.	Accounting separation only.	Access provided for by law.
Slovenia	SZ is a state owned joint stock company. The Government controls passenger tariffs.	Accounts are separated.	Legal basis exists but practical dispositions yet to be implemented.

Table 1 - Application of key criteria in the European Conference for Ministers of Transport's (ECMT) New Countries. Source: ECMT (1998)

National Railway	Legal constitution	Separation of accounts from infrastructure	State influence on investment decisions	PSO – form of agreement	Passenger tariff control	Freight tariff control	Non weighted reform grading
Moldova	1.25	1	1	1.25	2	1	1.3
Latvia	3.75	2	1	1.25	2	5	2.5
Bulgaria	1.25	2	1	5	2	5	2.7
Slovakia	1.25	2	1	5	2	5	2.7
Estonia	3.75	1	1	3.75	2	5	2.8
Romania	2.5	2	1	5	1	5	2.8
Croatia	1.25	2	1	2.5	5	5	2.8
Czech Republic	1.25	3	3	2.5	2	5	2.8
Poland	1.25	2	1	5	3	5	2.9
Slovenia	3.75	2	1	3.75	2	5	2.9
Lithuania	3.75	1	1	5	2	5	3.0
Hungary	3.75	2	1	5	2	5	3.1

KEY TO SCORES (1-4 CATEGORIES SCORES MULTIPLIED BY 1.25)

LEGAL CONSTITUTION
5.00Joint stock company privately owned
3.75.Joint stock company 100% state owned
2.50.State enterprise with commercial statutes
1.25.State enterprise with statutes substantially limiting commercial freedom

SEPERATION OF ACCOUNTS FROM INFRASTRUCTURE
5.Infrastructure entirely independent
4.Infrastrucutre subsidiary of service operator
3.Infrastrucutre a separate division of service operator
2.Accounting separation only
1.No separation

STATE INFLUENCE ON INVESTMENT DECISIONS
5.Low - formality
3.Intermediate
1.High – provides funds or loan guarantees

PUBLIC SERVICE OBLIGATIONS (PSOS) – FORM OF AGREEMENT
5.00.Legal contract
3.75.Written agreement
2.50.Other
1.25.None

PASSENGER TARIFF CONTROL
5.None
4.Some specified services
3.All subsidised services
2.All domestic service
1.All passenger services

FREIGHT TARIFF CONTROL
5.Principally market driven with individual contracts
1.Some or all freight rates controlled

WEIGHTED REFORM GRADING METHODOLOGY

Weighted scores (Table 4) are calculated by weighting the passenger components by the ratio of passenger kilometres to traffic units and weighting the freight component by the ratio of freight tonne kms to traffic units. These two scores are then added together to give an operational reform score. The final grading is obtained by averaging this score with the average of the three institutional reform ratings.

Table 2 – Initial non-weighted reform scores for CEE Railways.

Whilst Table 2 gives as useful comparison of the stage of reform reached by each railway company, the range is limited and the grading does not truly account for the different importance of each attribute. For example, reform relating to the carriage of passengers will only have real influence if a sizeable proportion of income consists of passenger revenue. A useful way of assessing the effects of each component business is to compare the ratio of passenger kilometres to total traffic units as in Figure 1. In can thus be seen that with the exception of Hungary, the majority of traffic units in CEE countries are made up of freight tonne kms. To allow the reform grading to reflect to a greater extent, whether reforms are being enacted in key areas, a new weighted value was calculated by placing each attribute within one of three categories – institutional reform (separation of operations from infrastructure, legal status and state influence on investment decisions), passenger related (nature of agreement for public service obligations and freedom to set passenger tariffs) and freight related (freedom to set freight tariffs). The passenger and the freight reform ratings were then multiplied by the ratio of passenger kms, or freight tonne kms, to total traffic units; these were them summed. This summed figured was averaged with the average institutional reform grading to give the total weighted reform shown in Table 3.

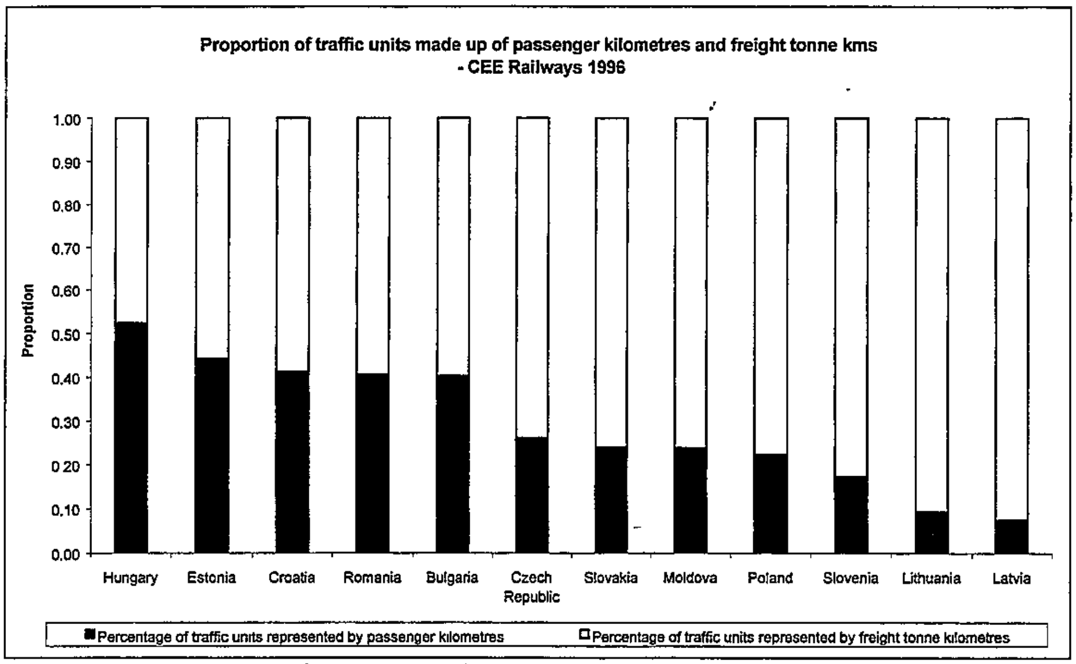

Figure 1 – Percentage of Passenger kilometres to traffic units CEE Railways

As can be seen the final columns in Tables 2 and 3 differ. With the exception of Moldova all have increased. The maximum change was an increase of 22% for the Czech Republic. This suggests that Table 2 underestimated the reform levels by failing to properly acknowledge effects in key markets. The overall country rankings though have not changed significantly – the Hungarians, Slovenians and Lithuanians still exhibit the highest reform scores; the Latvians, Moldovans and Bulgarians the lowest.

National Railway	Average institutional reform score	Passenger based component	Freight based component	Operational score	**Weighted reform grading**	Non weighted reform grading
Moldova	1.1	0.9	0.5	1.3	**1.2**	1.3
Latvia	2.3	0.7	2.8	3.5	**2.9**	2.5
Bulgaria	1.4	1.4	2.9	4.4	**2.9**	2.7
Slovakia	1.4	1.4	3.0	4.4	**2.9**	2.7
Estonia	1.9	1.2	3.0	4.1	**3.0**	2.8
Croatia	1.4	0.9	3.8	4.7	**3.1**	2.8
Poland	1.4	0.9	3.9	4.8	**3.1**	2.9
Romania	1.8	0.8	3.7	4.5	**3.2**	2.8
Czech Republic	2.4	0.5	3.8	4.3	**3.4**	2.8
Lithuania	1.9	0.3	4.5	4.9	**3.4**	3.0
Slovenia	2.3	0.5	4.1	4.6	**3.4**	2.9
Hungary	2.3	0.3	4.6	4.9	**3.6**	3.1

Table 3 – Weighted reform grading – selected CEE Railways

The next logical exercise would be to see whether or not greater reform correlates with a high level of performance. This could be done by assessing changes in key performance indicators over time under whilst reforms were being initiated. The authors therefore developed indicators in the areas of asset utilisation, efficiency and financial effectiveness for both 1993 when it was assumed that there was no reform and 1996, the year offering them a comparable data set for each country. Comparison of trends should indicate whether companies, which have implemented the greatest levels of regulatory reform, have reaped the rewards in terms of improved performance or whether the effects of other performance drivers outweigh those relating to reform.

4 DOES REFORM CONTRIBUTE TO GREATER ASSET UTILISATION?

A logical assumption to make would be that railways with greater commercial freedom can rationalise their supply network to meet demand in the most effective manner and therefore achieve higher levels of utilisation (and hence improve commercial performance). Utilisation can be measured in terms of traffic units per track km. Traffic units are the sum of the output measures, passenger kilometres and net freight tonne kms. Combining these output measures avoids distorting the analysis against railways who carry large volumes of freight, but not passengers and vice versa.

Figure 2 plots the reform grading against million traffic units per track kilometre for a selection of CEE Railways. The utilisation data relates to 1993 and 1996, 1996 being the latest comparable year for all concerned. The first noticeable aspect of Figure 1 is the vast majority of change, be it positive or negative has been moderate, and shows no correlation with reform. There are one or two exception though.

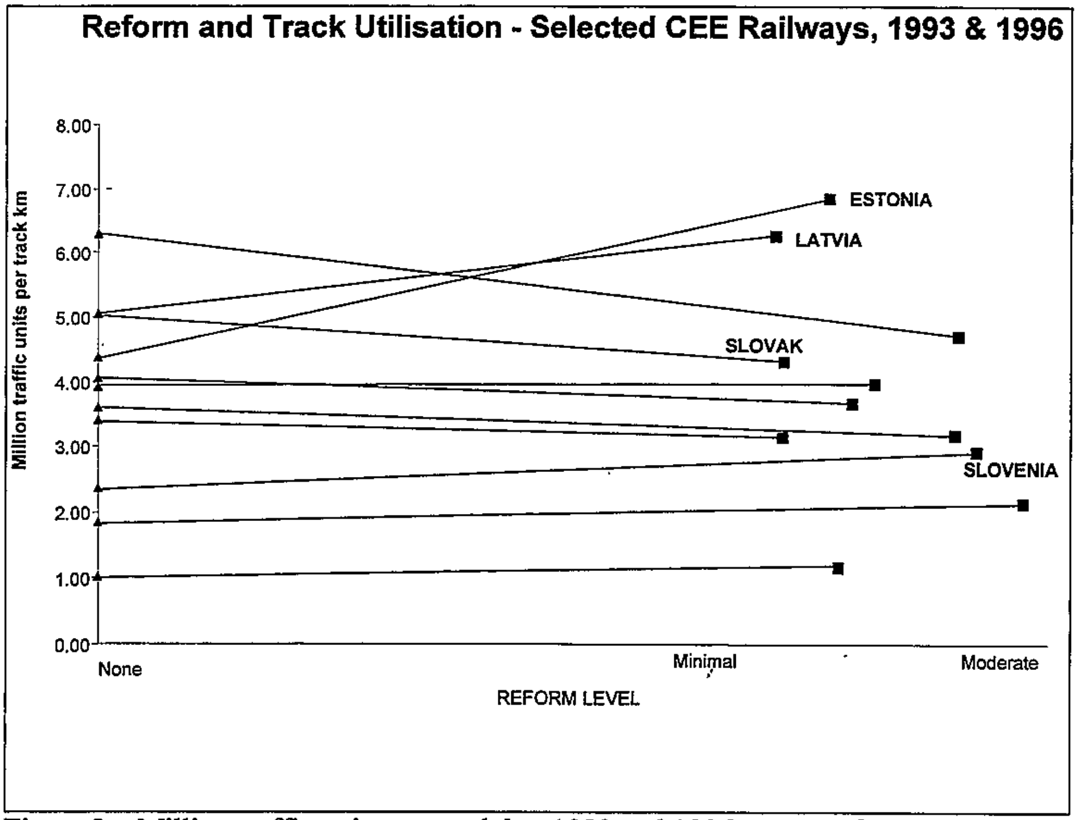

Figure 2 – Million traffic units per track km 1993 and 1996 versus reform grading
Source: Janes World Railways 1998 and Rail Business Report, 1999.

Particular attention is drawn to the Latvian Railway (LDZ). The rate of change for LDZ's utilisation is a marked increase, despite a small drop in traffic units, implying some network consolidation has taken place. The level of reform, however, has been moderate – there is still no contract for services provided under a public service obligation. One reason for the relatively high utilisation is the small size of the network. But the prosperity of LDZ between 1993 and 1996 was primarily due to good links with Russia and aggressive marketing from the Latvian Ports. A positive spin off, for the Railway Company, of this relationship was that it was not forced to shed as many staff as other countries.

This has now changed due to a combination of factors – cooler relations with Moscow leading to the abolition of lower tariffs and increased competition from other Baltic ports. LDZ are in a much less promising situation in 1999 than they were in 1996. What does seem clear though is that the key driver at work in their prosperity is not reform.

5 DOES REFORM YIELD GREATER EFFICIENCY?

In theory companies with relatively high levels of commercial freedom could rationalise their network and services to meet the prevailing patterns of demand. The railway would then be run only with sufficient numbers of staff to operate a viable service, and maintain a high quality network. However, this is seldom the case.

Railways are usually characterised by overstaffing and strong labour unions. Traditionally Governments regarded railways as key employers havens, directly employing 1-2 percent of inhabitants and supporting a much larger share of the overall population. There is therefore no considerable resistance to downsizing if there is no alternative source of employment.

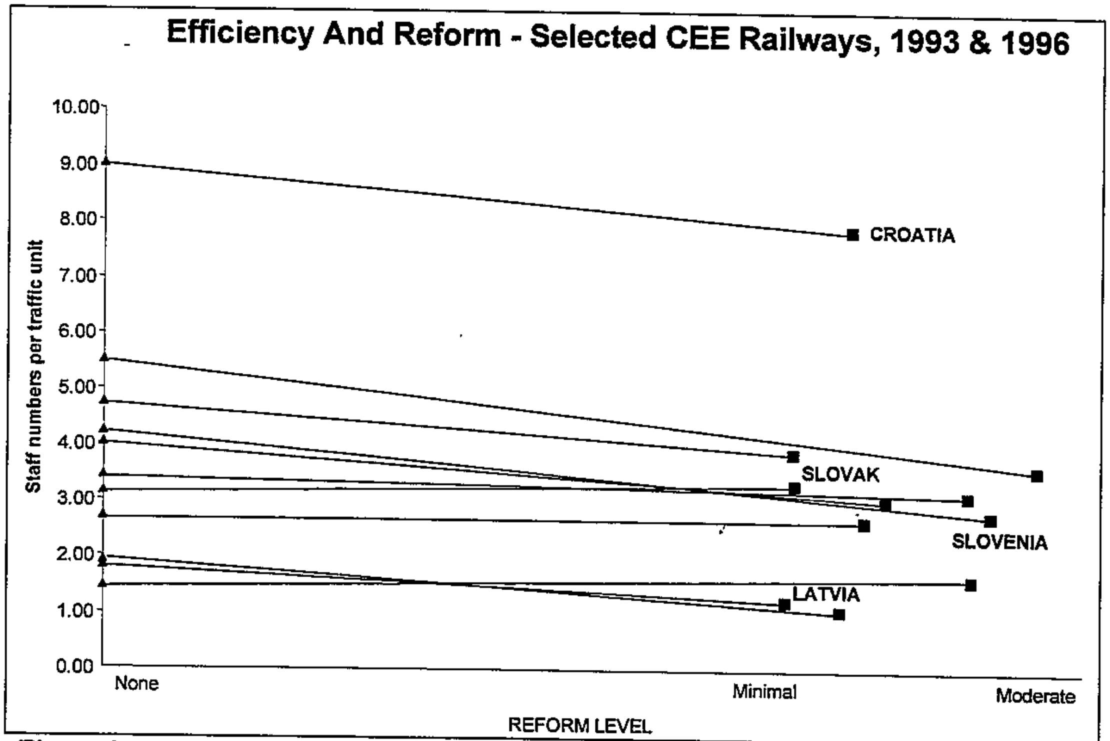

Figure 3 – Employees per track kilometre 1993 and 1996 versus reform grading
Source: Janes World Railways 1998 and Rail Business Report, 1999.

Figure 3 explores this hypothesis. Efficiency is measured in employees per traffic unit. Croatia's poor position is of course highly related to conflicts in the Balkans. All the railways have had to shed staff to a greater or lesser extent and with two noticeable exceptions all have improved their efficiency as the reform process has developed. One of these exceptions Slovakian Railways, ZSR, saw traffic units fall at a greater rate than it could shed staff and for this reason their efficiency deteriorated as the reform process developed. The reasons behind this are discussed below.

Mirroring the severance of Slovakia from the Czech Republic, the Czechoslovakian railway system (CSD) was divided in 1993 into Slovakian Railways (ZSR) and Czech Railways (CD). Like other railways ZSR has suffered from the decline in traditional industries and the rise in personal transport. According to Daiwa Europe Limited (1998) during the period 1989 to 1997, employee numbers fell by 20% to 52,345. Employee costs, however doubled during this period. ZSR is seen as providing an essential social services and substantial reductions in staffing would face huge political objections; there is simply not the commercial culture within the organisation to make this happen. Staff reduction to date has been mainly based upon "natural reductions" due to retirement and spinning off ancillary businesses such as train maintenance. ZSR are formulating a staffing plan at the moment but political sensitivity and very strong trade unions will result in this being a difficult undertaking.

There are best practice implication emanating from the case of ZSR. Simply suggesting that a railway needs to reduce its number of staff ignores many other factors such as where do these staff go, opportunities for training and what will be the consequences of their redundancy in terms of the welfare budget and political stability. Ensuring future viability means that not only do staff numbers need to be reduced, but the right staff are being retained. The emphasis should always be on the capability of the workforce, not only the size, and there is a risk that the brightest and best will be the ones to move out given their employment prospects.

6 DOES REFORM YIELD BETTER FINANCIAL PERFORMANCE?

Freedom to make commercial decisions and greater access to investment capital should allow a business to maximise revenue and minimise cost. The hypothesis to be explored here therefore is that greater reform equals greater cost coverage. Cost coverage can be quantified as the ratio of operating costs to operating revenues. Operating costs broadly consists of operations costs (fuel, materials labour), infrastructure and rolling stock maintenance costs and administrative costs (management, planning, secretarial etc). A competent manager will minimise these within the confinements of regulatory constraints and sound commercial sense.

Freight operators have traditionally had positive revenue to cost ratios but in passenger traffic operating cost typically exceeds operating revenue and the difference is the subsidy provided by government to allow services to operate for social objectives.

An examination of Figure 4 shows little correlation between financial effectiveness measured in terms of the operating ratio (percentage of operating costs covered by operating revenues) and reform. Most railways have managed to improve their operating ratio as the reform process has unfolded, but the more reformed railways do not have noticeably better operating ratios.

The case of Slovenia is particularly interesting, as it is one of the more reformed railways yet, has not been able to improve its operating ratio between 1993 and 1996. Slovenian Railways are a joint stock company. In theory this means that the decision making should be more commercially driven in Slovenia than before to maximise the value of the stock.

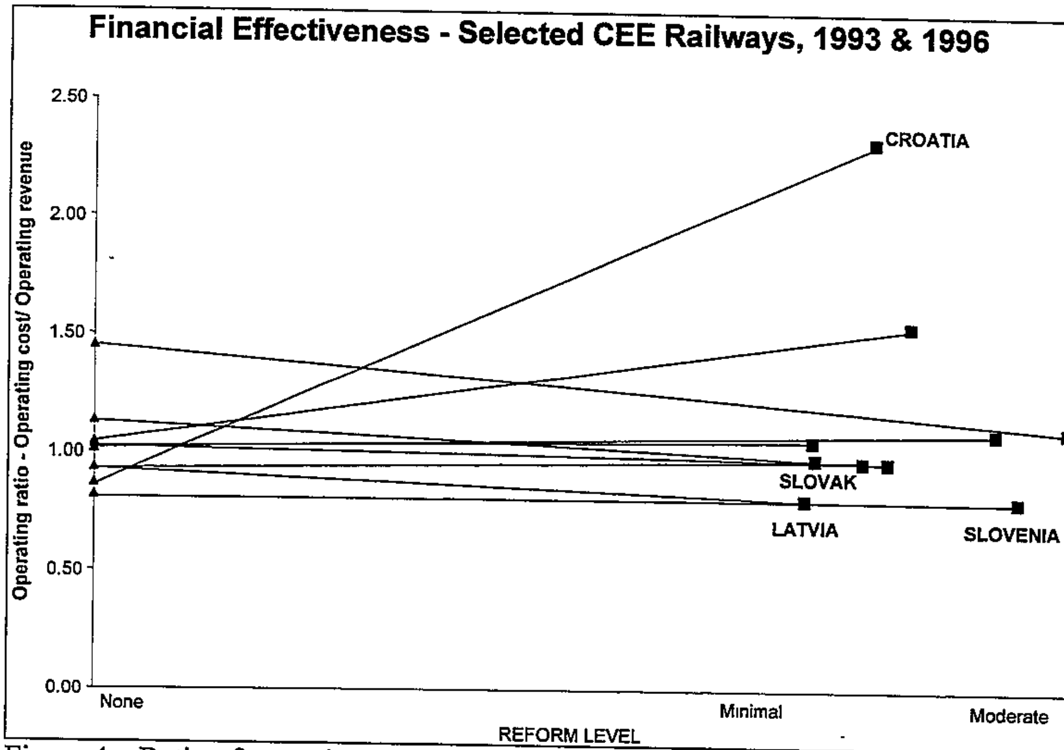

Figure 4 – Ratio of operating costs to operating revenue
Source: Janes World Railways 1998 & Rail Business Report 1999

What makes the trend in financial performance even more suprising, however, is the fact that Slovenia's economy is booming compared to other Eastern European Countries. Slovenia is a natural junction of transport routes that connect central and western Europe with the near east or southern Europe, and one of the few former Eastern block states to have a GDP comparable to that of the Western European Countries. The restructuring of the railway in Slovenia has been sufficient to attract sizeable development funds.

In fact a key business driver is the relative size of Slovenia and its rail network. A great deal of the traffic carried by SZ is transit traffic over short distances where the rates are comparatively low, due to them being set in a competitive environment. In addition the small size of the Slovenian network means that they will find it difficult to utilise their rolling stock as well as other nations with larger networks. Whilst small networks can be beneficial from the point of track utilisation, rolling stock utilisation would appear to be a different issue.

7 CONCLUSION - HOW LARGE ARE THE EFFECTS OF REFORM COMPARED TO OTHER FACTORS?

The authors would wish to reiterate the fact that they support the process of reform in railway companies throughout Eastern and Central Europe. Greater commercial freedom and less political interference can only be of benefit in the long term. This paper does not aim to suggest that there is no need for reform. It does, however contest the philosophy that a reformed railway will by definition prosper in the future.

Of course it takes time for reforms to have an effect and it is likely that the level of reform has not yet been sufficient to allow many rail companies to operate with higher levels of performance. Nevertheless Central Eastern Europe is a fascinating arena to watch railway reform take place and to monitor its effects over time. The reforms to date have been slow and often unclear, and comparable data, based upon common definitions, is very scarce. Yet whatever their limitation, broad comparisons such as those in this paper let policy makers and finance institutions consider the relative effects of reform in comparison with other factors. Even a reformed railway may not perform that well over time, largely due to circumstances beyond its control.

More specifically this paper has shown that the following factors may often outweigh the effects of reform.

- The importance of trade with Russia for the Baltic nations. The boom and decline cycle of Latvia's railway has mirrored its relations with Russia.
- The benefits of a dense, core network, with well-defined corridors for high levels of track utilisation.
- The relative affluence of the economy with regard to the competition in the market and the ease of staff reduction.
- The importance of political stability.
- Larger networks tend to have higher levels of rolling stock utilisation and can generate more income per freight tonne.
- The presence of alternative freight routes through adjacent countries.

The effects of reform take time to materialise; such reform should be supported and monitored over time. It is highly possible though that a railway with low levels of reform will exhibit better performance indicators over time than one with a high level of reform, due to extraneous factors. This is something IFIs and Development Agencies would do well to bear in mind as they look to fund the development and integration of all of Europe's railway network.

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