

Railway Structure Models

Why Look at Railway Structure?

In Canada's vast land, the importance of rail freight transportation is well understood. We move large volumes of freight effectively and efficiently. Can we be assured, however, that our shippers have competitive rail freight rates and the best system possible to allow them to ship goods to domestic and international markets? Do our railways have the necessary incentives to pursue initiatives that will promote greater efficiencies and attract the capital to provide a **sustainable and competitive rail system to serve shippers?**

North American Setting

In general, rail systems in North America are becoming increasingly integrated on a continental basis. One of the driving forces is the desire to have more efficient rail systems to handle growing North American and overseas trade.

The need for increased efficiency has transformed the U.S. rail industry structure into a more concentrated one. It is now characterized by just seven U.S.-based Class I carriers and a supporting tier of over 500 regional and short line feeders. This compares to 37 Class I railroads that were in operation in 1980. Some believe there will eventually be only two or three U.S. transcontinental carriers.

U.S. rail restructuring to date has resulted in efficiencies and significant improvements in financial performance. This successful industry record has led several countries in

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Latin America to emulate the U.S. model of an integrated, privately owned railway structure.

In some respects, Canada is viewed as playing "catch-up" with the U.S., which had a head start on restructuring beginning with deregulation in 1980 through the *Staggers Act*.

Canadian railways have already made significant changes to improve productivity and introduce efficiencies. Policy-makers have also addressed the need for change by generally increasing reliance on market forces and continuing to legislate competitive access to protect shippers from anti-competitive practices.

Many believe more changes are needed. As we strive for excellence, it is useful to keep abreast of what others are doing, particularly in nations with which we compete (see pages 9-11). Are there lessons to be learned from rail restructuring that our competitors have tried; ideas that we might adopt or that we should avoid altogether?

International Experience

In countries such as Sweden, the UK and Australia, more radical steps have been taken and rail restructuring continues to evolve, based on a concept referred to as "common user roadbed". Under this model, provision of the infrastructure (e.g., track, signals, stations) is separated from the provision of transportation services (carriage). The concept is similar to the transportation model used for highways and has also been adopted in the Canadian and U.S. telecommu-

nications and hydroelectric industries where a public or private utility is responsible for providing the infrastructure.

The context and nature of the problems facing a rail industry vary by country. Consequently, rail restructuring in other nations depends on unique circumstances; solutions that make sense in one country are not always applicable to others.

Railway Restructuring Issues

The nature of the rail industry is such that it requires large capital investments. These investments become a barrier to entry and thus create a lower level of intramodal competition than exists for other modes such as truck. This confers certain natural market powers to rail operators.

Shippers in the U.S. fear that railroads

have gained excessive market power. They also expect that further consolidation of carriers and track rationalization will lessen rail competition and eventually lead to fewer rail options and higher freight rates. This comes precisely at the time when lower rates are viewed by shippers as one of the keys to their survival.

While U.S. shippers have competitive transportation options available (barge, truck), many are highly dependent on, or captive to rail, and they feel more options are needed. For them, a key issue is how to open up rail access. Some shipper groups have called for reregulation to address such concerns. The railways would view this as "forced access", which would increase the regulatory burden and prevent railways from recovering their investment costs.

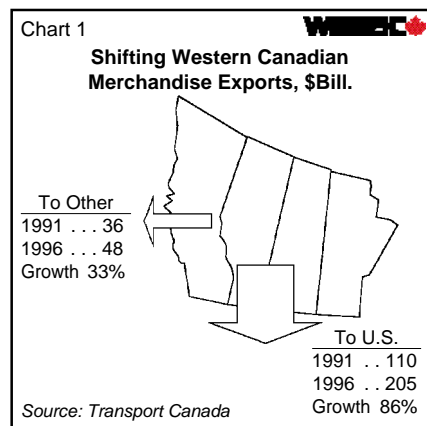
It is instructive for Canada to continue monitoring other rail structure models because:

- injecting further competition into the rail system in those circumstances where little now exists may promote lower prices and better services for shippers;
- there is a desire for more efficient, market responsive railways and the flexibility to allow this to occur;
- it is accepted that the user of the infrastructure, whether road or rail, should finance the provision of that infrastructure; however, there is debate about whether all users are paying their fair share;
- technological advances in train control and management information systems may help overcome previous difficulties of using a separated rail structure.

A number of events have fuelled discussions concerning the Canadian rail system.

Global trade liberalization and rising consumer demand in many countries has sparked strong growth in the goods sector of the world economy in recent years. Many shippers find themselves competing in international markets more than ever before. A large part of their success depends on being able to sell their goods at a competitive price.

Between 1991 and 1995, rail had the highest average annual growth rate in merchandise trade value of any mode in Canada (source: Transport Canada 1996 Annual Report). There has been renewed discussion in Canada recently concerning railway operations and efficiency. Some of the main issues fueling this discussion are:



- **trade growth** - west coast ports and the rail system face challenges and opportunities as trade liberalization stimulates rising trade volumes and competition among trade gateways. This has raised awareness of the

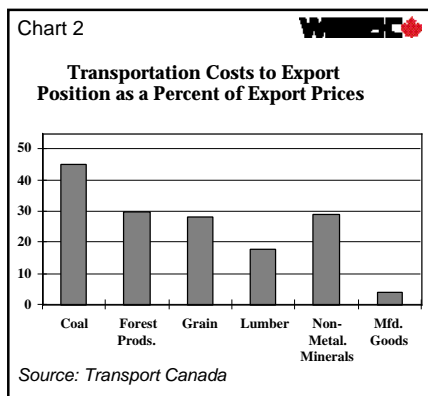
importance of having an efficient railway system;

- **grain sector events** - the 1996/97 winter's unprecedented delays at west coast ports saw grain deliveries drop to their lowest level in ten years. This prompted calls for an early grain review in advance of the review mandated for 1999 under the *Canada Transportation Act (CTA)*. Such a review would examine the efficiency of the grain handling and distribution system and could include benchmarking of system performance standards against competing grain producing countries;
- **U.S. rail restructuring** - the recent wave of large scale U.S. railroad mergers poses a threat to Canadian

Shifting markets and competition from trucks and U.S. railways have intensified the need to achieve further rail efficiencies.

exporters that compete with U.S. shippers for sales in foreign markets. Also at stake is Canadian railway participation in the increasingly important transborder market which is viewed by many shippers and the railways as one of the fastest growing segments of their business.

Transport costs in Canada average 20.7 percent of the value of exports for our primary industries (compared to less than 5 percent for manufactured goods). For some commodities such as grain and coal, transport costs account for as much as 25-45 percent of the value of the commodity at export position. Shippers therefore place increased importance on transportation efficiency as they seek to benefit from lower freight rates and high quality, reliable service.

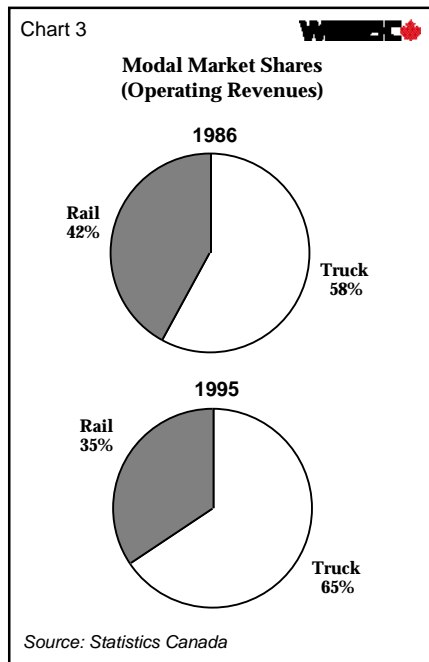


Pressures for restructuring are mounting . . .

Shifting markets — overall east-west rail traffic volume has increased over the last ten years. Although transborder (north-south) traffic volumes are still substantially lower than east-west volumes, there has been greater growth in north-south traffic, with more than a 50 percent increase since 1986. This is due in part to improved

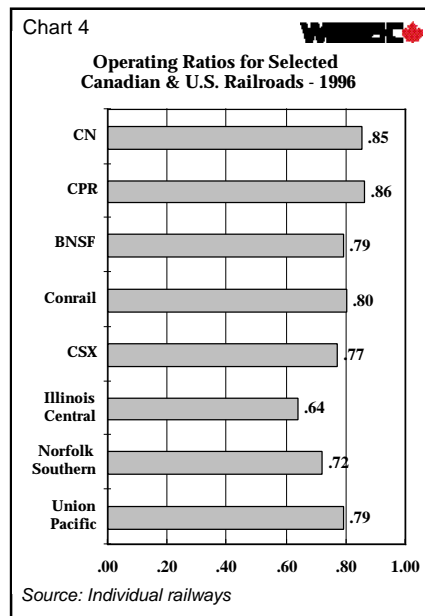
economic activity, as well as the Canada-U.S. Free Trade Agreement.

Stiff truck competition — rail traffic volumes have been continually losing share to truck. The loss of subsidies historically paid to the rail industry (e.g., WGTA) appear to have further shifted the balance between the two modes. Railways also contend that truck operators have an unfair advantage because they do not pay their share of construction and maintenance costs of the highway infrastructure. The trucking industry believes that it pays its fair share through a variety of taxes, fees and licences. It contends that shippers have shifted their business to trucks because of that mode's high quality door-to-door service capabilities and greater flexibility to handle smaller order lots required by just-in-time (JIT) delivery. There are also cases where trucking has captured business well suited to the rail mode because of improved technology and increased truck payloads.



Severe competition from U.S. railroads — U.S. trade represents a significant and growing proportion of Canadian National (CN) and Canadian Pacific Railway (CPR) business. Today, more than one-quarter of the tonnage moved by Canadian railways, and a significantly higher proportion of its value, is destined for U.S. markets. Competition from the U.S. carriers is therefore of vital concern; consider the following:

- In 1996, most major U.S. carriers had operating ratios in the 70-80 percent range. BNSF's operating ratio was 79.2 percent; Illinois Central posted a figure of 64.4 percent. Comparative ratios in Canada were 85 to 86 percent.
- U.S. carriers such as BNSF had freight revenues of US\$8.1 billion in 1996. In contrast, the combined CN-CPR freight revenues were US\$5.5 billion.
- U.S. railroads enjoy several "non-market" advantages over their Canadian counterparts, such as a



Policy-makers, labour and the railways have taken steps to adjust.

more favourable tax regime. U.S. railroads pay about eight percent of their revenues in input taxes (e.g., fuel, property, and payroll taxes), compared to more than 14 percent for the Canadian railways. The U.S. also has more favourable accounting rules that influence investment decisions. For example, in the U.S., a new diesel locomotive would be fully depreciated after eight years. In Canada, by the end of year eight, only 55 percent of the asset value can be depreciated. The **Federal Government** has addressed rail sector efficiency through several initiatives. Since 1988, these changes include:

- introduction of confidential contracts, competitive line rates, extended interswitching, running rights, and final offer arbitration (*NTA, 1987*);
- elimination of rail freight subsidy programs such as the WGTA in 1995;
- privatization of CN in 1995;
- passage of the *CTA* in 1996, streamlining the process to transfer or discontinue rail lines, and encouraging the formation of short line railways.

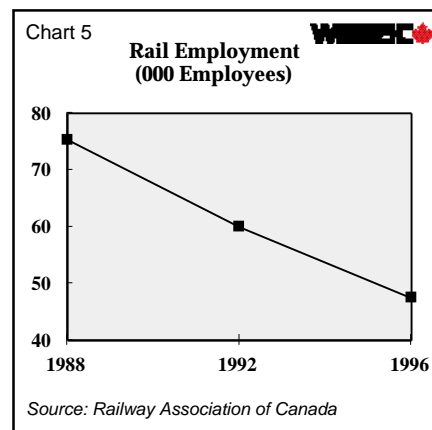
The recent policy thrust has generally been to increase reliance on market forces and to commercialize government operations.

Labour in many sectors has had to adapt to challenges brought on by massive industry downsizing. Advancing technology has also changed the skill set and training requirements. Perhaps the single biggest challenge for labour and communities is how to enhance Canada's position in world markets while preserving employment opportunities and our standard of living at home.

Major **railway** structural changes are already underway in Canada. Actions are being taken to reduce costs, as well as pursue growth opportunities to improve financial returns and attract the capital needed for future investments and efficiencies.

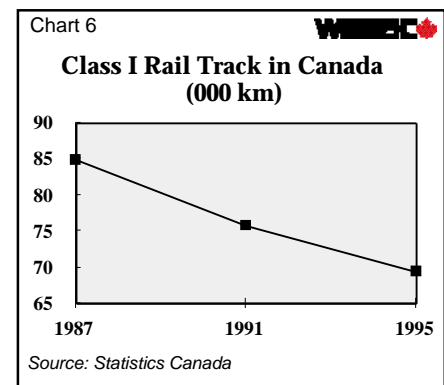
Restructuring has occurred on two main fronts:

- **labour downsizing** - At CN, employment has been reduced by 54 percent in the last 15 years; at CPR, the figure is 40 percent. However, the major adjustment period is basically completed and further significant downsizing is unlikely.



- **more aggressive approach to rail line rationalization** - there is a need for higher traffic densities. Much of Canada's rail network is under-utilized with over 90 percent of CN and CPR tonnage carried on 40 percent of their track. Light density lines are more costly to operate and have been one of the chief contributors to previous poor financial performance. By comparison, Class I U.S. railways have greater traffic densities and therefore generally lower cost structures.

CN and CPR divested about 18 percent of their combined rail networks between 1986 and 1995. The majority of this track was abandoned, with no other rail operators willing or able to assume service. This is partly explained by the low traffic volumes on many lines, as well as labour laws in some provinces which required that pre-existing labour agreements apply to any new employer (successor rights).



Since passage of the *CTA* and the changes to successor rights legislation in Ontario, there have been over 3,800 km of short line railways formed in Canada (including OmniTRAX's take-over of the CN line to Churchill in August, 1997). Another transfer (over 1,000 km) is pending for the CN line to Hay River, NWT.

This recent growth in the amount of short line track being operated is significantly greater than the number of short lines created in the previous ten years combined, although much of the prairie rail network has been unaffected. The rationalization trend is expected to continue with some 6,000 km identified either for discontinuance or conveyances within the next three years (approximately 14 percent of the CN/CPR networks).

Two basic models for railway structure are described below.

Production of railway services involves two broad elements - provision of *infrastructure* (e.g., track, yards, signals, stations) and provision of *transportation services* which requires locomotives, rail cars and supporting equipment and personnel. There are two basic models for producing railway services.

VERTICALLY INTEGRATED STRUCTURE

Under a vertically integrated structure, a single entity produces and provides ongoing maintenance of both of these elements.

Justification for vertical integration has been argued on several premises:

- **economies of scope** - a lower cost structure will result where one firm provides both infrastructure and rail transportation services.
- **complexity in the production process** - there is a complex inter-relationship between track and the operation of trains (e.g., trade-off in design of track and operating speed which in turn affects costs). Therefore, it is simpler to provide overall service in an integrated fashion.

The integrated structure has a long history and is widespread around the world. The main differences occur in **ownership**. In North America, private ownership is the norm, with varying levels of economic regulation governing rates. In many other countries, the state has become the sole owner and funder of the railway enterprise, pursuing social/political as well as commercial objectives. In these cases, subsidies are common for services mandated for the public good, and the railway company is protected from competition by regulation.



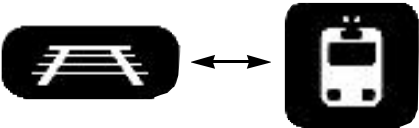
VERTICALLY SEPARATED STRUCTURE

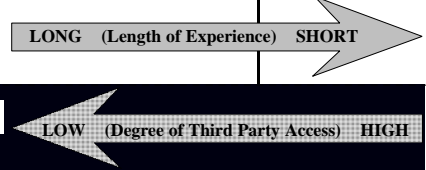
Under a vertically separated structure, the theory is that one entity ("TrackCo") owns the infrastructure and other competing entities ("TransportCo's") provide transportation services. "TrackCo" is usually (but not necessarily) a government agency or department. The transportation companies contract with the track owner for access, which is available to any company meeting the operational requirements. Access charges are regulated to prevent the track owner from abusing its monopoly power.

The rationale often advocated for a vertically separated structure is:

- **lower rates and improved service** - new transportation service companies will be created which will compete in offering rate and service packages;
- **to put rail on an equal basis with truck** - rail transportation companies would be more on a par with trucking, with the advantage of not having to incur the high fixed costs of providing track during low traffic periods (i.e., only pay access charges if track is used);
- **technological advances** - recent advances, such as in train control and communications, make the separation of track from transportation service more feasible.



A key difference between the two models is the degree of third party access to infrastructure. Vertical separation is intended to mandate access to transportation service providers. Under an integrated model, railways generally do not operate on another's lines, but may voluntarily grant each other access (running rights).

WIRBIC 	Vertically Integrated Model	Vertically Separated Model
Characteristics	<ul style="list-style-type: none"> • single entity owns infrastructure and provides transportation services • entity may be privately or publicly owned 	<ul style="list-style-type: none"> • one entity owns infrastructure • purest form would have multiple transport service operators in competition with each other • track usually publicly owned (but does not have to be); service providers either publicly or privately owned 
History	<ul style="list-style-type: none"> • mature • well-tested 	<ul style="list-style-type: none"> • at early adoption stage; transitional • unrefined; practical issues unresolved
Third Party Access	<ul style="list-style-type: none"> • voluntary or regulated 	<ul style="list-style-type: none"> • mandated



There are opposing views about the best industry structure.

In examining different rail structures, there are several key factors that should be considered: costs and efficiency; rates and service; financial performance and the ability to attract capital investments; operations and safety; and the policy setting.

Supporters of Vertical Separation Say . . .	
COSTS/ EFFICIENCY	<ul style="list-style-type: none"> A structure where a number of rail service providers operate in competition with one another over a common infrastructure (third-party access) will promote greater efficiency, and lead to lower costs. 
RATES/SERVICE	<ul style="list-style-type: none"> Major integrated railways such as some of the Class I railways in the U.S. have considerable market power, making it very difficult for a new railway to be formed. Barriers to entry and exit in the transport service component will be dramatically reduced where the high fixed costs associated with infrastructure are managed by a separate body. Shippers will have a choice of operators, as rail service providers seek to offer the best price and service options. This is particularly important for a shipper whose products are only suited to rail transportation. Shippers will gain added flexibility to vary a route and access a more favourable destination, by being able to move goods over the combined infrastructure of more than one railway. A rail service provider will be better able to focus on serving local shippers and/or passengers, leaving all of the issues related to infrastructure to another organization. Isolating rail service providers from the infrastructure (if publicly funded) would make them comparable to trucking service providers which operate on a publicly funded road network. If rail service providers no longer had to make the high cost investments in infrastructure, they could more easily adjust freight rates with variations in the demand for their services. 
FINAN- CIAL	<ul style="list-style-type: none"> Separation can provide better information on work activities and costs for different functions which leads to more informed investment and marketing decisions.
OPERA- TIONS	<ul style="list-style-type: none"> Modern technology reduces the communications and transaction costs of having different groups involved in providing a rail transportation service, and allows for safer operations, eliminating previous obstacles to separation.
POLICY	<ul style="list-style-type: none"> Isolating a single infrastructure owner from those providing rail transport services allows for subsidies mandated for the public good to be paid to the infrastructure owner. This would allow governments to provide funds to support social goals such as promoting sustainable transportation. The separated structure with competition in rail service will mean that policy-makers are not forced to monitor and regulate this part of the industry. Government would need to regulate only where the market does not provide competition — in the infrastructure — reducing the ultimate cost of government. In spite of a number of issues related to valuing the infrastructure, it is possible to create a private entity that would be responsible for infrastructure.

Supporters of Vertical Integration Say . . .

COSTS/EFFICIENCY	<ul style="list-style-type: none"> • Rail economics dictate that efficiencies are achieved when consolidated shipments (e.g., multiple car trains, unit trains) are transported over long distances. Under a separated structure, operations may actually be less efficient because multiple transportation service providers would be competing for the same traffic base, resulting in smaller average train consists. In addition, coordination difficulties imposed by the smaller and more numerous consists would lead to even greater inefficiencies and capacity constraints. • An integrated railway must be innovative to make greater economic use of its infrastructure. This is only possible through the provision of creative service offerings that require a coordination of infrastructure and operations strengths. This competitive dynamic is absent if infrastructure is divorced from operations because track owners and transport service providers will pursue different objectives. • If a separated structure means equal access to infrastructure, the pricing mechanism should be based on cost sharing and this will not help identify inefficiencies in the network; thus, rationalizing unproductive track will be more difficult. 	
RATES/SERVICE	<ul style="list-style-type: none"> • If a monopolistic roadbed owner charges rates based on full cost recovery, shippers will not see lower rates. If the roadbed is charged at less than cost, some form of subsidy will be required — who will pay for this? If no new transportation service providers emerge, a separated structure will not lead to lower rates unless they are regulated. • Distancing the infrastructure further from shippers is generally contrary to railways around the world that are pursuing closer ties with their customers. Therefore, customer service is likely to suffer under a separated model (e.g., the management difficulty of being further removed from customers has been expressed by Sweden’s SJ Railway). 	
FINANCIAL	<ul style="list-style-type: none"> • Separating track investment decisions from the operating side will lead to sub-optimal investments and result in a less market responsive system. Infrastructure management and rationalization would be complicated if government owned the track. • The separated model will not work financially. Operators on separate systems often need to be granted a sole franchise to succeed and make operations manageable. It would thus be difficult to find anyone willing to finance operation of a rail service over the same infrastructure. • A large unfunded liability will arise under the separation model. Track providers would mandate greatly reduced operating speeds and other operational limitations to avoid liability. 	
OPERATIONS	<ul style="list-style-type: none"> • The operational aspects and interface between services from the track and running of trains is too complex to separate (e.g., track design standards and maintenance strategies affect train speeds and axle-loads which in turn affect customer service parameters such as reliability, transit time, and safety; dispatching to multiple service providers would be less efficient). 	
POLICY	<ul style="list-style-type: none"> • The policy climate in Canada does not favour the separation model. Prior to the enactment of the CTA, alternative rail structures used in other countries were investigated and it was determined that a vertically integrated structure without government ownership or subsidy was the best option for Canada. 	

There are several points to remember.

As the issue of railway structure is discussed in future,
it is important to remember . . .

Promoting a low cost, competitive rail system

- The success of many Canadian shippers depends on having a low cost rail system, particularly in relation to that available to U.S. shippers, and also to that of other nations with which Canadian shippers compete.
- A key to reducing rail costs is to increase traffic density — traffic volume per mile of track operated. Rationalizing unproductive track is critical to increasing traffic density (although a number of strategies may be pursued to increase traffic volume).
- There is nothing inherent about railway structure itself (i.e., vertically integrated/separated structures), that provides ready solutions to achieving the optimal network or the most efficient rail system.

Rates and market power

- In theory, the vertically separated model promotes intramodal competition through multiple transportation service providers which effectively reduce the market power of the incumbent integrated operator(s). Evidence of this, however, is very limited around the world. If competing carriers do not emerge, or see no financial incentive to do so, the desired competition will not result.
- Regulation of rates and service (e.g., confidential contracts, competitive line rates, extended interswitching) have been used to address market power under Canada's integrated structure. These measures may keep rail market power in check but can only be expected to foster a limited degree of intramodal competition if the underlying market power remains.

Investment incentives

- In a changing and competitive environment, capital investments in plant, equipment and technology are needed to renew and upgrade

the system and lower costs. An industry structure which limits a rail operator's ability to achieve its desired rate of return will undermine the incentive to invest.

Rail/truck infrastructure financing

- It is not clear that rail's loss of market share to trucks is a result of Canada's railway structure, nor is it clear that it results from differences in infrastructure financing between modes.

North American and other experience

- For Canada, the focal point in examining rail structure developments should be the U.S., our largest competitor and customer.
- Recent severe service issues in the U.S. associated with Union Pacific, while temporary, have provided evidence to support some shipper groups in their call for re-regulation. It will be instructive to monitor the policy direction regarding competitive access in the U.S. in 1998 as the mandate of the Surface Transportation Board is reviewed.
- The North American "mindset" embodied in the incumbent integrated, privately owned/operated system would be very difficult to change and any move toward separation protracted (e.g., valuation issues in establishing a track company, developing operations protocols and pricing mechanisms).
- Experience with the separation model in other countries should be viewed as "work in progress" because it is in a transitional stage and drawing conclusions about its advantages and disadvantages is not yet possible.
- Developments in other nations should be monitored, while recognizing that each has a unique starting point for restructuring. As experience with separation grows, a more conclusive assessment of its advantages/disadvantages will be possible and desirable.

Supplementary Information: Country Profiles and Selected Experience

The focal point in examining rail structure developments around the world should be the U.S., Canada's largest competitor and customer. It is also worth noting what other countries are doing. The countries below are representative of some of the changes that are taking place. All are developed regions with mature rail industries. Canada competes with all of these countries in some market (e.g., with the U.S. for many bulk products; with Sweden and New Zealand: forest products; Australia: coal and wheat; and the EU: wheat).

Given Canada's geography, rail costs constitute a significant factor in the delivered price of many bulk commodities. In other countries, shorter distances to port, availability of inland waterways, and/or heavy truck competition may make rail costs less of a factor in their delivered prices.

In many nations (particularly in Europe), the poor financial condition of railways, significant loss of market share to trucks, and the imposed requirement to handle subsidized passenger traffic have severely limited the attraction of private capital. Hence, for

countries such as Sweden or the UK, one of the chief motivations for pursuing a separated structure is the desire to reduce the government's financial losses from rail operations, and not necessarily a conscious rejection of the vertically integrated model.

The "pure" vertically separated model, where individual shippers would choose between two or more rail carriage operators, is rare, if not non-existent. In Sweden, for example, several prospective carriers compete for a sole medium-term franchise.

The following two countries have integrated structures.

The U.S. has a structure of private, integrated railways with a record of cost efficiency and performance.

Pressures for change

Prior to 1980, rail rates were heavily regulated and railways were required to provide many uneconomic services. As a result, the industry was in poor financial condition.

This changed with the passage of the *Staggers Act* in 1980.

Response

After 1980, the industry began to segment into two kinds of private carriers: large inter-regional carriers (Class I railways) and smaller local carriers serving as a supporting feeder network (some 500 regional and short line railways). Many uneconomic light-density branch lines were converted to privately owned and operated small railways.

The 37 Class I railways that existed in 1980 have been reduced to just seven today. The mergers have been of two types, overlapping and end-to-end. In either case, the primary motivations are market access and the pursuit of cost efficiencies.

Results*

Class I carrier route mileage decreased by over 21% between 1985 and 1994, with over half of the mileage transferred to short line railways. As a result, Class I carriers increased their average traffic density by 76% and decreased their average costs per revenue-ton-mile.

Class I carriers have generally shown strong financial performances, with recent operating ratios below 80. However, not all mergers have gone smoothly, as significant short-run service and safety issues have occurred in some cases (e.g., UP). Further developments are expected in 1998 as the government reviews competitive access.

NEW ZEALAND chose to privatize its national railway as an integrated unit.

Pressures for change

Prior to 1982, New Zealand's rail system was operated as a government department. It had both commercial and social objectives, with the latter often overriding the former. The railway was unprofitable, highly inefficient and tended to be production rather than customer focused. The rail system was also shielded from competition by regulations that limited trucking operations.

Response

There was a shift toward the privatization/corporatization of infrastructure beginning in the early 1980s, initially prompted by the imperative to raise cash through asset sales.

In 1993, New Zealand Railways Corporation was sold as planned, as a single integrated unit to a consortium of New Zealand and foreign investors (including 23% to Wisconsin Central Transportation). There was a need to relieve the government's financial burden and improve the position of rail vis-à-vis other modes.

Results*

Rail market share and profit performance improved. Between 1983 and 1993, there were dramatic improvements in productivity, financial performance and customer service, along with a 60 percent drop in the number of rail cars used and a 75 percent reduction in staff.

After the restructuring and sale, New Zealand Rail is earning a profit, according to Wisconsin Central's 4th quarter 1996 report.

* The impact on rail freight rates due to restructuring is difficult to determine and depends on specific local conditions. Comparisons can be misleading and are therefore not attempted.

The following two countries have separated their infrastructures from the provision of transportation services.

SWEDEN chose to separate rail infrastructure from train operations and deregulate rail freight.

Pressures for change

Prior to 1988, the rail industry was a state-owned monopoly providing the infrastructure and train operations. Economic regulation protected the system from competition, but rail lost market share and required increasing government subsidies following the deregulation of the trucking industry. At the same time, there was a growing desire for both road and rail transport to recognize the social costs of air/noise pollution and accidents. It was also recognized that a new management approach was needed.

Response

In January, 1989, Swedish State Railways (SJ) was split into an operating organization (SJ, still owned by the state (but corporatized with its own board of directors), and a separate government entity responsible for the infrastructure, Banverket (BV), or the National Rail Administration.

The new policy was to: put rail and road on an equal basis (infrastructure pricing and investment appraisals); include the costs of pollution and accidents in pricing transport services; create incentives for SJ to operate efficiently; and provide state funding or subsidies only where appropriate.

Results*

In July, 1996, the rail freight sector was deregulated, allowing anyone “fit, willing and able” to enter the market in competition with SJ. To date, this has been little used. Rail passenger traffic is not yet deregulated, although proposals have been made.

Despite impressive improvements in performance, industry officials indicate that it is not yet possible to privatize SJ. Earnings have been insufficient to attract private capital. It appears, however, that removing the social objectives from SJ and having the organization focus on profit maximization has significantly improved management effectiveness.

The UK separated operations from infrastructure ownership as part of its privatization initiative.

Pressures for change

Prior to the Railways Act of 1993, British Rail was unregulated, state-owned and responsible for providing almost all passenger and freight rail services. It operated as a government enterprise without rail competitors. There was a severe loss of freight market share (from 37% in 1952 to 7% in 1990) to trucking partly because of changing freight composition and because truck transport was relatively unrestricted, operating in a deregulated environment. Further, British Rail’s large losses had put severe pressure on the government to make changes.

Response

Restructuring “unbundled” the various functions of British Rail and created many new private organizations. At the core was the separation of track services from train operations. Railtrack was formed as a monopoly organization owning the tracks and stations and obligated by contract to provide good service. Other operating companies included freight services, business parcels, train operating units, 25 franchised passenger train services, infrastructure services, rolling stock maintenance companies, and station operators. An Office of the Rail Regulator was formed, as an independent body to control licensing, access charges between transportation operators and Railtrack, and infrastructure investments.

Results*

Government subsidies for passenger services have declined, service has improved, and some fares have been reduced. Railtrack’s shares nearly doubled in value from the issue price in May, 1996 to February, 1997.

Early reports indicate English Welsh and Scottish Railways, the largest rail freight operator, has been earning profits.

There is little other rail freight competition, as only large companies with the financial ability can set up open access operations. Only two such companies were in service by 1996.

* The impact on rail freight rates due to restructuring is difficult to determine and depends on specific local conditions. Comparisons can be misleading and are therefore not attempted.

The following two regions are exploring options and are at a relatively early stage in a shift toward a separated structure.

The EU has tried to integrate many national rail systems to open up access to rail lines throughout EU member states.

Pressures for change

The rail market share for freight in the EU declined from over 30% in 1970 to 15% in 1993. The loss was to road transport, throughout the EU countries. In addition, the financial situation of European railways had greatly deteriorated. Many carriers operated as state monopolies making politically motivated, as opposed to commercial, decisions. Liberalization of road freight transport had also put significant downward pressure on prices. Consequently, there was an urgent need to stimulate competitiveness, attract capital and bolster international transportation within the 70,000 km rail network in the EU.

Response

A 1991 Directive for the international network called for separating infrastructure management from rail transport services, along with mandatory accounting separation. Later Directives were aimed at designating trans-European rail corridors with any licensed operator allowed to use these by contracting with a single body for access.

Results*

There has been uneven commitment to rail restructuring and considerable opposition in some states. Under EU rules, railway companies are permitted to use rivals' infrastructure to run services across Europe, but domestic competition rules have limited the use of the provision. State controlled owners of track and trains continue to provide most rail services.

The accounting separation of track has been successfully completed in most states and it appears this will lead to better information on infrastructure costs and more informed investment and marketing decisions.

AUSTRALIA is privatizing public railways and creating a separate authority to control interstate rail infrastructure.

Pressures for change

Rail transportation was originally organized independently by state (even to the point of using different track gauges), partly because rail traffic was oriented to transporting goods to the coast within each state. The four state-owned railways and federally-owned Australian National Railways (AN) operated at a deficit for years.

In 1993, a National Competition Policy based on the Hilmer Report proposed reforms to promote competition, restrain monopoly pricing and provide third party access to facilities essential to competition.

Response

In 1993, National Rail Corporation was formed under joint federal-state ownership. This company took over all interstate rail freight transportation services. The company negotiated access with the track owners (state and federal governments).

There is now direct competition for interstate freight with two privately owned companies in the market. Third party access regimes are either in place or are being developed in all states to facilitate competition for intrastate freight and the government owned railways are adjusting their structures to ensure access provision is independent from transport services. Recently all of AN's operations were sold to three private consortiums. The federal government has announced its intentions to sell its share of National Rail.

Results*

Interstate rail operations are now vertically separated with mixed government/private ownership. Intrastate rail (export traffic) is using both integrated and separated models under public ownership.

Competition now exists on interstate routes and open access on intrastate routes is either available now (NSW) or will be available in the next 12-18 months. Efficiency levels and profitability of existing railways are improving rapidly. For example, Westrail posted profits over the past two years for its integrated business. The NSW Freight Corp. posted operating profit for its above services.

A broader national track management authority, Track Australia, is planned. Announced in 1995, the Authority has not yet been created.

In some cases, freight rates have been reduced significantly over the past five years.

* The impact on rail freight rates due to restructuring is difficult to determine and depends on specific local conditions. Comparisons can be misleading and are therefore not attempted.

PURPOSE AND ACKNOWLEDGEMENTS

WESTAC produces papers on topics of broad interest to its Members and the wider transportation community. The purpose of this paper is to inform and to stimulate discussion. It contains no recommendations, nor does it represent a WESTAC position.

Before publication, the paper was reviewed for accuracy by Members and others knowledgeable in the subject. The Council is grateful for this input.

WESTAC is a non-profit association of major organizations in the Western Canadian transportation system. Members include carriers, shippers, ports and terminals, labour unions, and the three levels of government. Member organizations are represented by their senior people - executives, ministers, and labour leaders.

The Council is not a lobby group; rather, it aims to focus attention on, and provide impartial information about, critical transportation issues and provide a forum where the active players can jointly address issues and concerns in a non-confrontational setting.

For further information about the Council or to obtain additional copies of this paper, please contact the WESTAC office at (604) 687-8691.