CONFESSIONS OF A MONOPOLIST:
Investment in, and Management of, the Vertically Integrated Railway

RAILWAY STUDY ASSOCIATION
London School of Economics
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Railroad Development Corporation

Thank you, Adrian. It is an honor to be here and I'd like to return the compliment and say that I had heard about this guy Adrian Shooter for many years from many people who said that he was one of the best railway managers in the UK; that's why I made it my business to introduce myself to him. Fortunately we had a mutual friend and he knew that I was not 100% crackpot – maybe 50% crackpot – and as they say, "The rest is history." Now let's get started.

My understanding is that the RSA is for the most part an industry group, so I would like to tailor my remarks to the audience. The last time I gave a talk on this subject in England was approximately 1995, when the railways were first going through privatization. At the end of this presentation, I will give you our website address and if you're curious, you can view my remarks from then. I will leave it up to you to decide as to how it really worked out versus the way I thought it was going to work out at the time.

The title of this topic has been chosen not necessarily to generate controversy, but rather to highlight the fact that I come from a much different environment than the UK. In particular, I come from an environment where the vertically integrated railway is the business model. I would go so far as to say that I don't know a lot about the details of how things work in the UK, so you should take my comments in that context.

First I will provide some background on RDC, followed by some examples of the challenges we face in our business; take a big-picture approach in terms of looking at the structural and financial considerations of at least the vertically integrated railway; and then draw some conclusions. My goal is to conclude in such a manner that there will be sufficient time for questions and answers because that is what I personally will get out of this evening — the ability to interact with people from the UK rail industry. I am hoping that some of the things I am about to say will be wrong so I will come away with some new knowledge of your industry.

Background on RDC

RDC is a private company based in Pittsburgh that invests in and manages railways. We are a small company with 5½ full-time employees. We describe our business as Emerging Corridors in Emerging Markets, which means in some cases not just railways, but also railways and ports; railways and pipelines; or whatever we can do to generate economic activity. Consistent with Adrian's theme for the RSA of "Partnership", let me twist the words around slightly and say that in our context, partnerships take the form of Joint Ventures. Joint ventures will be the theme throughout this discussion.

USA

Our base business in the USA is the **Iowa Interstate Railroad** in which RDC is a minority shareholder. Adrian shared with you that I worked for the Rock Island Railroad in the 1970s and at that time it was a bankrupt railroad which shortly afterwards liquidated. In the late 1970s, 25% of the rail mileage in the USA was in bankruptcy, which is one of the reasons that the railways were deregulated and allowed to "sink or swim".

In 1984 pieces of the liquidated Rock Island were stitched back together as the Iowa Interstate Railroad in order to restore the through route from Chicago to Omaha. Interestingly, this route is paralleled by three bigger and much stronger railways – Burlington Northern Santa Fe, Canadian National and Union Pacific. Why would you have a fourth railway between Chicago and Omaha? That would be comparable to having a railway from Marylebone to Birmingham competing with the West Coast Main Line. I think the answer is the same reason that Chiltern has been so successful. You're not necessarily going after the Birmingham to London traffic, but rather the intermediate points. Adrian is the "monopolist" as far as passenger service to Ayelsbury; we are in a similar vein as far as Newton, Iowa.

The Iowa Interstate goes across the central part of the USA, serving the major intermediate markets. While we do not particularly compete for Chicago to Omaha, we do compete for Des Moines to Chicago and Des Moines to Omaha in terms of freight traffic. I show a picture of our local freight as opposed to the usual publicity shot of the road train with five locomotives and double stacks, etc. because our bread and butter really is serving private-siding customers – individual wagonload customers, one at a time – as opposed to running the through trains. A lot of Iowa Interstate's traffic originates or terminates on branch lines served by trains that are very short.

Argentina

Our first involvement overseas came in 1991 when RDC was first contacted by the Argentines. As I said before, we are a company with 5½ employees. At that time we were the largest and most substantial company that was willing to talk with the Argentines because nobody in the US had been there and no one understood what was contemplated. I had been in Argentina as a tourist and we basically immediately made a deal with the people who turned out to be our original partners and the rest is history.

We have gone through a number of restructurings of the company since then; we have new partners that are part of a bigger system; and in fact it is a minority part of a system which now includes Brazil. The point is that this is a joint venture, just as the Iowa Interstate Railroad is a joint venture with the shipper group that bought the Chicago to Omaha line in order to preserve the service. In Argentina we are a joint venture partner with Latin American companies. Let me add that in most cases RDC is a minority partner because there are all kinds of skills that come together in this type of business, only one of them being railway skills.

One of the Argentine railways is **ALL-Central** that runs from Buenos Aires to Chile; the other is **ALL-Mesopotámica**, formerly known as the Urquiza and it runs to Brazil, Uruguay and Paraguay.

Interestingly, these are all former British railways. Argentina nationalized the railways in 1947 and that is actually one of the things that bankrupted the government. It is interesting how history has come full course from private ownership to nationalization and back to private ownership, not unlike the history of railways in the UK.

Guatemala

Our most challenging business has been reviving the abandoned national railway of Guatemala. The railway was abandoned in 1996, despite their having a privatization program which was never completed. It was put up for bid in 1997 and RDC was the only bidder. We began restoration work in 1998 just in time to get wiped out by Hurricane Mitch; we finally got the railroad opened toward the end of 1999.

Ferrovias Guatemala is an extremely challenging project because it was an abandoned national railway and actually there are parts still abandoned. We are operating the Guatemala City-Atlantic line – moving import steel from the Atlantic, containers in both directions, and run one train per day. We hope to reopen the rest of the railway in pieces, focusing on reopening the Mexico line.

Because the economics are so marginal in this project, we were able to negotiate the right for fiber optics, pipelines, etc. None of this has happened yet, but it was apparent that this railway will not survive on its own and since the government had no money, the rights for real estate type activity (fiber optics, etc.) were included in the concession. The partnership in this case is truly bootstrap capitalism; our shareholders are approximately 50 Guatemalan investors and Ferrovias Guatemala is one of six non-bank companies that is traded on the local stock exchange.

Peru

Literally our most high-profile business is the Central of Peru — another British-built, British-owned railway earlier in the last century. **Ferrocarril Central Andino** is the World's Highest Railway and operates 3 miles into the Andes. This has been an extremely successful business for RDC and we have UK partners (Commonwealth Development Corporation), as well as Peruvian investors and other investors whose names you will recognize like Mitsui. Interestingly, we restored passenger service on this railway purely for the profit motive in the middle of 2002 and it serves the tourist market with a monthly tourist train.

Malawi / Mozambique

Latin America is mostly privatized now and The World Bank people are fond of saying that the biggest non-privatized railway in Latin America is Cuba. So the next big opportunity in the developing world will be Africa.

RDC is very proud of its association in Africa with the former Malawi Railways, which was privatized at the end of 1999 and operates as **Central East African Railways**. We consider this venture the first private sector rail investment in Africa since our competition is the national railways of France and the national railways of South Africa. So we are the only private rail company which is making direct investments in Africa. Again, this is a joint venture — in this case, with the government of Mozambique's railway, CFM, as well as local investors. Our lead partner is ERL, which is a Bermuda company with offices in Washington.

CEAR has recently played an important role in famine relief. I would argue that there would be a lot more people starving if the railway was still in government hands. It has been difficult but the railway has been better equipped to deal with the famine now that it's in private hands.

The western part of the railway is in Malawi and it goes to Mozambique in the east to the Port of Nacala on the Indian Ocean. Our goal is to integrate this corridor into a general cargo carrier, employing various transportation modes – Emerging Corridors in Emerging Markets. We believe that this is the first private sector integration of a railway and a port for general cargo purposes. It is our goal in the next three months to have the financing completed, which we have literally been working on for years, to bring the Mozambique side into this corridor so that it will finally be integrated.

Estonia

Despite the fact that RDC's focus has been on the developing world, we have now been able to establish a small toehold in Europe as part of the group that privatized the Estonian Railways in August 2001. This group is led by Ed Burkhardt, formerly of Wisconsin Central and EWS, and we are also partners with Jarvis, a UK company, in this venture as well as Estonian investors.

Eesti Raudtee is a big business, a heavy-haul North American style railway that moves 40 million annual tons. By North American standards this would be a small Class 1 railroad. The railroad runs approximately 70 freight trains per day and provides infrastructure for passenger service for the international, domestic intercity, and even electric commuter service operators. It is a vertically integrated railway despite its being in Europe. It is a European railway, but it is a European railway that goes to Moscow, not Brussels!

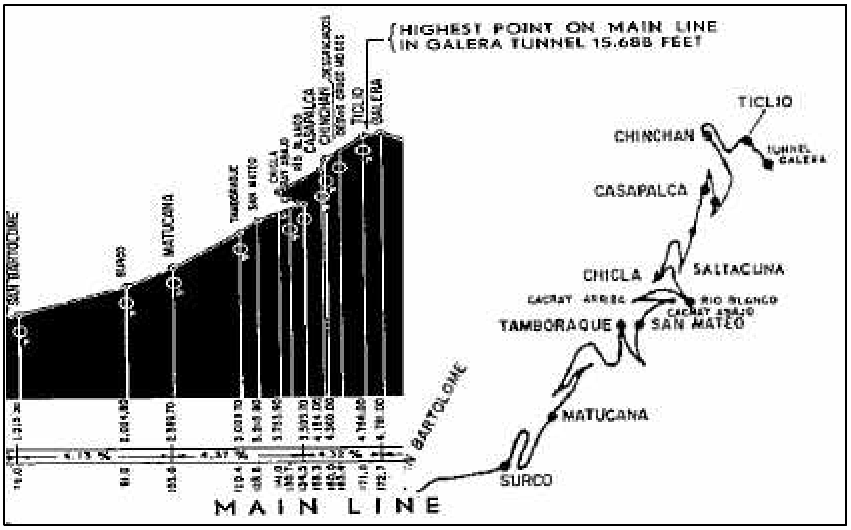
The Port of Tallinn is the main reason this railway operates. Our main business is moving Russian exports to the ice-free port of Tallinn (at least Tallinn was ice free up until about two weeks ago when, for the first time in recent memory, it got iced in for several weeks).

Typical Challenges

Now let's consider some diverse and graphic examples of the challenges that we face in our business. The challenges take many forms – operational, safety and cultural. We'll review a case study of the challenges that we face in Guatemala and then provide an overview of why our business is so challenging.

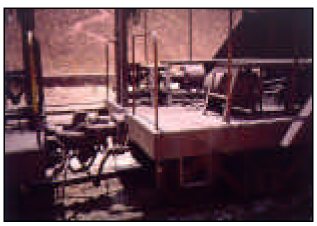
Operational Challenges

Our operational challenges are relatively straightforward. We operate across the Andes in Peru, through squatter colonies in Guatemala, on track that cannot handle a Hy-Rail vehicle, and have to deal with various issues regarding rolling stock.



In Peru the ruling grading is 4.2%; this is one of the steepest main line gradients in the world and it is worked by adhesion. This railroad has over 20 zigzags as its way of climbing *up* the Andes, not *across* the Andes. The more intense zigzags of Peru's track profile are shown in this graphic.

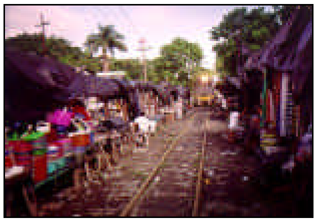
The Central is a unique railroad and if you have the opportunity to go on the Ffestiniog Travel charter which will be operating in July, I encourage you to do so. If you cannot join this charter, we have a passenger train and a steam locomotive which is available for charter at your whim.



Although the Central is a North American style operation, to deal with the mountain operations there are two air hoses between freight wagons. One is for conventional air brakes as used in the UK, but the other is direct air, meaning the entire train has essentially an independent brake like found in locomotives that have been multiple-united together. In this particular case, the types of braking systems used in the Andes are air brakes, direct air, dynamic brakes and hand brakes for a quadruple-redundant braking system.

And if the quadruple braking systems do not work, there is always the runaway track. These tracks are lined for the siding unless you are proven to be under control. The way you prove that you are under control is to stop the train, go into the cage, throw the switch by hand, and hold the switch down as the train passes, otherwise the train winds up on the siding.

Interestingly, after doing some research and despite the mythology that the clearances were so tight that special locomotives were needed, we were able to buy off-the-shelf, used locomotives from North America and have them rebuilt, reconfigured with straight air systems, etc. and they are now operating on the Central.



Shown here is our main line in Guatemala. In many cases, since the railway was abandoned, the main line was taken over by squatters. In this case, these are commercial squatters but we also have residential squatters, meaning people who put up their houses along the track. We even have municipal squatters where towns and cities have taken pieces of our main line. This situation is not ideal, but this is what we have to do to operate the railway. As I tell the folks in Guatemala, we recognize that "this is not Switzerland".

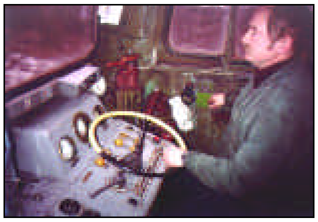
Another challenge is inspecting narrow gauge railways. In North America a Hy-Rail vehicle is used, meaning a highway vehicle with railroad wheels that drop down and operate on the track. You cannot use this method on narrow gauge because no one has built a pickup truck so narrow that it will work on the 3-foot gauge. Therefore track motorcars are used.

In the case of Estonia we inherited a Soviet locomotive fleet. These locomotives are maintenance intensive, fuel inefficient and highly polluting. We are in the process of replacing them with locomotives from North America.

In Estonia this is big-time, heavy-haul railroading. This is the Mother of All Freight Wagons, a 165-ton, 8-axle tank wagon. A lot of North Americans think that they have the most heavy-duty railroads in the world; the Soviets have always had them beaten – we just never knew it until the Iron Curtain came down. By the way, these wagons are not easy to re-rail. This is one of the reasons that it is important to have a very strong track structure, which fortunately we do.

The other interesting thing for a North American is seeing wagons rolling through a yard and then noticing that there are no hand brakes. The Soviet legacy is a system, which is better than what we have in North America, of using skates. The man on the left is putting a metal wedge on the track called a skate; when the wagon hits the skate, it grinds to a stop. It is better than a hand brake because you cannot sabotage it or replace it by hand; you need a locomotive to pull it off.

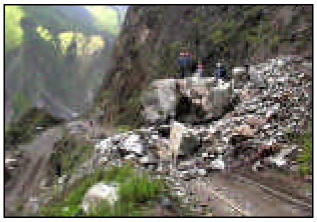
These are the used GE C36-7 locomotives that have been re-gauged and put into operation in Estonia. These off-the-shelf locomotives are replacing the Soviet locomotives on a 1-for-2 basis. I rode this particular locomotive when we set an all-time record for a single locomotive in Estonia – we hauled 5500 tons with one locomotive which had never been done before.



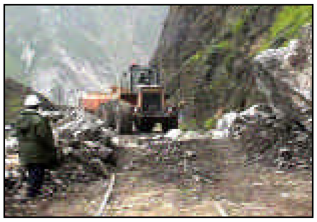
Keeping in mind that I'm an American, when I stepped into one of the Soviet locomotives for the first time, I was quite surprised to find a steering wheel. It was very tactfully pointed out to me that it is in fact a throttle. So there are cultural and technological differences.

Safety Challenges

Safety is not just a slogan for us; it is a yes or no in terms of how we operate. However, one must always make Solomonic decisions as to whether you operate or not, and we are faced with that in many circumstances.



In the Andes there are several names for landslides depending on their size. A small landslide is a *derrumbe* in Spanish. Pictured is a large landslide or a *huayco*. A huayco is generally anything that is larger than a house that comes down on the track. These rocks came down on one of our zigzags and this is how we dealt with it.



In Peru we have a full-time dynamite guy on staff during the rainy season since that is when the huaycos occur. After the rocks are dynamited, the bulldozer shoves the rocks away and the railroad is reopened.

In Peru we also run the track inspection car right ahead of the train. There is a tradeoff and, yes, it is possible that the train would run over the track motorcar, but that is not as likely as coming around a bend and hitting a huayco. In fact, this is a North American practice – the Western Pacific did it for decades and still does it as part of the Union Pacific, as does the British Colombia Railway.

This is our main line in Guatemala. The good news is that because we parallel a river, it is not all 3% grade. The bad news is that the river sometimes decides to take our track away; it winds up hanging in the air as pictured and we have to keep moving it back onto the bank.

There are interesting low-technology solutions that I'd never heard of. Bill Duggan, who is formerly Vice President of the Iowa Interstate Railroad, was a Division Engineer on the Illinois Central, which parallels the Mississippi River. He best of all people knows how to "train rivers", which is Bill's expression.

Bill is now President of the railroad in Guatemala and his solution for river defenses was to put boxcars in the river and fill them up with rocks during the dry season. When it rains, the riverbank will fill in behind the boxcars. I am here to tell you that it works; we've actually moved rivers using scrap boxcars. It is not a conventional solution, but it works and the price is right.

This is our main line in Guatemala City; we basically operate through a garbage dump. It is not ideal and we've actually had trains stall with presidential candidates on board when running our steam train. If nothing else, it shows people the conditions under which operate. Again, "this is not Switzerland" but it is where we have chosen to operate.

To the left is pictured cow intestines drying in the sun. One of the things we get to do is make up nicknames for places, therefore, Tripatenango in Spanish means "The Place of the Cow Intestines". For those of you who are train photographers, please note that I actually got off the train, ran ahead and set up this shot by special arrangement just for this group. And if you charter our steam train in Guatemala you can do this with our steam engine; bring your ladder and video gear.

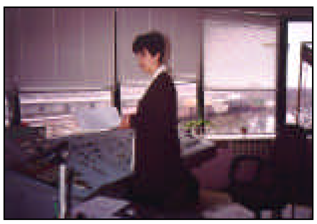
Quite frankly this is not the only Third World environment that I've done business in. When I was in the operating department at Conrail, this was our line through Brooklyn. And I can assure that even though it is now a short line, this is what it looks like right now. You are where you are and Guatemala is not Switzerland; neither is Brooklyn!

In some countries security is a consideration and you have to deal with it in the appropriate way. In this particular case we were running a train for VIPs so we made sure there was security on the train. I would also point out that we have never had an incident of any kind.

Cultural Challenges

Just as important as technical problems, we get into cultural challenges like language, demographics, the sheer distance of going places, etc.

A classic example of a language challenge is in Estonia where our train crews are Russian speakers, our managers are Estonian and Russian speakers, and the owners are English and Estonian speakers. This should be the Tower of Babel as far as a railway company is concerned. We've figured out ways to work together and work well together, but I would argue that this is as much of a challenge as operations in terms of how to make companies work, especially when you are doing business outside of your own country.



An interesting aspect of the Estonian Railways is that 50% of our employees are women, which is a legacy of Soviet times. This is as much of a cultural challenge for Americans to go to a country where women have a pervasive role in the daily operation of the railway. This is something the Americans have to get used to, not vice versa.

Case Study: Guatemala

Next I'll provide a graphic example of our most challenging project which is the Ferrovias Guatemala project.

1996 – Abandonment…Like I stated earlier, the railway was abandoned in 1996 and, in fact, the only rail service running was this private sector light rail operation. Since I'm an avid reader of *Modern Railways* magazine, I should probably state this a different way – this is an example of Dynamic Thrusting Private Sector Management. The Vigor of the Private Sector is no where better manifested than in this light rail operation — which has the side effect of making sure the rails were not stolen. As long as there are people with an economic interest in seeing the rails stay in place, they will.

1996 – Abandonment (cont.)…This is what our main line looked like. These are residential squatters, as opposed to commercial squatters.

1997 – Accelerated Deterioration…This is what happens when a government decides that they're going to let a railroad be abandoned and let the Magic of the Marketplace bring it back. The fact is, if you're not running regular inspections and not maintaining the railroad and if there is a washout or some other problem, it does not get fixed and eventually stuff goes away. This picture was taken in 1997, and now this bridge is actually 20 feet lower than when the picture was taken because the river has continued to take it lower. I would not be surprised if the bridge is now buried under layers of river sand. This is on the Pacific side, the side that we have not yet been able to get back into operation.

1998 – Rehabilitation Begins…In 1998 we were able to raise capital in the local markets, and in conjunction with our local partners, we were able to finance rehabilitation of this railroad which involved using manual labor to install sleepers made of locally harvested trees. This was 98% local content and it was the cheapest way we could find to open the railway. The goal was to open the railroad and test the market before we went back and double tracked it and electrified it.

1998 – Rehabilitation (cont.)…This bridge was rebuilt with 50 manual laborers and a manually operated cement mixer.

1998 – Hurricane Mitch…Hurricane Mitch was not in the business plan and what you see here is one of our more important bridges that rolled 1/3 mile down from where it was supposed to be. Needless to say this was a big problem for us because we had already spent half of the budget on the creation of two railroads – the Northern Railroad and the Southern Railroad, bisected by this missing bridge.

1999 – More Storms…And even as we worked there were more floods on the Motagua River that took out other pieces of our main line.

1999 – Creative Engineering…Pictured here is a Guatemalan solution. On the left is a dirt ramp and the bridge section is being dragged on this dirt ramp. There is a front-end loader in the middle that is putting more dirt on the front of the ramp. The idea is to drag the bridge 10 feet, add 10 more feet to the ramp, drag it another 10 feet until it's in position and then remove the ramp. This is certainly not a North American engineering practice and I don't think I've seen this done in the UK, but this is how to get things done in different environments. It worked and we certainly learned something from this.

1999 – Commercial Operation Restored…We were finally able to restore service in 1999.

2000 – Moving Traffic…Right now we are handling containers and steel. We're not handling enough, but we have made the point that the railroad is back. Our challenge is to not only grow that business but also to develop the other opportunities that are the economic underpinning of the business such as use of the right-of-way for fiber optics, pipelines, etc. We're still working on that. This is the only example of a national railway that has been restored to operation by the private sector and we're intensely proud of that.

2000 – Collapse of Atlantic Highway Bridge…We would like to think that the railway has already provided strategic benefits to the country. For example, in the year 2000 a truck that was hauling a container, which the railroad could have been hauling, hit the side of a bridge on the Atlantic Highway, closing the Atlantic Highway for several days. This container should have been on the train, but it wasn't.

2001 – Fatal Collision on Atlantic Highway with Container Truck…In 2001 a container fell off a truck and hit a bus, killing dozens of people. The railroad should have been hauling that container, but it wasn't.

Financial Challenges – Squatters

The other interesting aspect is that we have been declared not a solution, but a problem by the multi-laterals that finance infrastructure in developing countries. The reason is that when the train started running, the squatters had to leave — which meant that WE were the problem. We have not been able to obtain financing for this project because of the problems that we have created by running trains. I'm sure all in this audience share the arrogance that our business is good for the country and the environment, but not everyone shares that view. This is a nice segue into what I would like to say about financial challenges and some of the structural challenges unique to this business.

Macro Challenges

At the macro level it is extremely difficult to finance railways in developing countries. Regulation is sometimes a factor as well as politics. But to be quite honest, politics are not nearly as much of a factor in poor countries as in rich countries; usually poor countries have to focus more on economics if only because they have no choice.

Structural & Financial Considerations

Now I'd like to comment on some structural and financial considerations that are based on my experience as someone who has been involved on a number of continents — even Europe, in the case of Estonia. I hope these comments in particular will be interesting to this group; just keep mind that these come from a foreigner with a different perspective.

ENVIRONMENT (TABLE A)	**North America**	**South America**	**Europe**	**Southern Africa**
Distances	Long	Medium	Short	Medium
Traffic Patterns	Concentrated	Concentrated	Fragmented	Concentrated
Breaks of Gauge	0	Many	1	0
Capacity Constraints	Line Capacity	Ports	Clearances	Track
Orientation	Freight	Freight	Passenger	Freight
Business Languages	3	2	Many	2
Frontiers	2	Many	Many	Many
Ownership	Private	Private	Public	Public

Table A compares the railway environment from continent to continent and it is interesting how South America and Southern Africa fit in. I would encourage you to make the major comparison between North America and Europe. In particular, note the "Orientation" line; I believe that North American railways are freight oriented, whereas European railways are passenger oriented. I think it is quite a substantial difference and that is why my comments need to be taken in context in terms of the conclusions that I will draw.

The other comparison is distance. North America is big, it's a few countries, a few languages; compare that with Europe's relatively short distances, different languages, etc. Therefore, the environment is substantially different than in North America.

RESTRUCTURING ORIGINS (TABLE B)		**North America**	**South America**	**Europe**	**Southern Africa**
ECONOMIC	Bankruptcies	X			
	Lack of Investment	X	X		X
	Operating Losses		X	X	X
POLITICAL	Privatization Thrust		X		X
	De-Monopolization			X	

Most importantly, the reasons for restructuring are substantially different between North America and Europe (Table B). I made the earlier comment that when I worked at the Rock Island Railroad, 25% of the US rail mileage was in bankruptcy. This is very much a case of the government saying that you have to fix your own problems and we'll give you the freedom to go out of business; there is no money — you need to fix your own problems. Thus, deregulation was the result – the North American solution. In contrast, as I see Europe, there is a more substantial political component that's driving the process; in particular, note that I put "de-monopolization" as a reason for restructuring. This is my personal opinion.

The driving force (Table C) in North America is deregulation, driven by economics; Europe is de-monopolization, driven by politics. But despite there being political components in both small developing countries and in big richer countries, I would like to argue that the driving force, regardless of the political intent, is economics and will always be economics.

STRATEGIES (TABLE C)	**North America**	**South America**	**Europe**	**Southern Africa**
PRIMARY	Deregulation	Privatization	De-Monopolization	Increased Trade
SECONDARY	Labor Reform	Labor Reform	Privatization	Privatization

For numerous examples (Table D) as to why this is the case, look at the comparison of Exclusive Franchises, which is what we have in North and South America and Africa, with the Open Access environment that is being promoted through Europe. One of the key things to consider, at least from a financial perspective, is the value of the business – is the business worth anything?

MARKET FORCE RESULTS (TABLE D)	**EXCLUSIVE FRANCHISES**	**OPEN ACCESS**
FINANCIAL MARKETS	Customer-specific investment in equipment and infrastructure (USA, Latin America)	Customer-specific investment in equipment (UK)
	Consolidation of Brazilian and Argentine franchises; US rail mergers	Consolidation of UK trainload freight businesses
	High valuation of Mexican businesses, Conrail	Low valuation of UK trainload freight businesses (even after consolidation)
TRANSPORTATION MARKETS	Increase in Latin American traffic	Decline in European traffic
	Return of southern Africa's international flows	Growth in European river transportation (containers)
	Renegotiation of franchise terms (Latin America)	Capacity constraints on freight growth (UK)
	Penetration of eastern coal markets by western coal (USA)	Cannibalization of EWS coal flows by Freightliner (UK)

For example, consider the price paid for Conrail when it was vivisected a couple of years ago – half went to Norfolk Southern, half went to CSX. History has proven that the price was way too high and, in fact, I believe that those railways are now worth less than Conrail alone before they embarked upon that transaction. But the point is that at that time the financial markets believed that there was some significant value in it. Contrast this with the price that EWS was sold for when it was privatized — and I think history has subsequently proven that it is worth even less. The primary reason is Open Access.

As I've said before, I read Modern Railways and it's the basis for my forming opinions about a lot of things UK-related and Europe-related. As you flip through issue after issue, there's always the picture of the named locomotive — "Her Majesty's 18th Royal Fusiliers" or the like — hauling a coal movement that used to be hauled by one operator and is now being hauled by another one. Example after example describes traffic that was EWS' and now it's moved by Freightliner, etc. As an outsider it seems to me that for the most part traditional movements like coal are being shifted from freight operator to freight operator as a result of low margin cannibalization. I think that has a lot to do with the financial results.

I see Max Steinkopf in the audience. Let me also say that I have read about GB Railways' getting coal business and that was not a personal insult.

[Question from Mr. Steinkopf] What about Estonia?

We'll talk about that later.

[Mr. Steinkopf] You're saying you're the first; didn't we buy it?

You're right; we were the second into continental Europe (but first at a national level!). GB Railways was the first and I'm glad you're here to keep me straight. And again, I apologize for not mentioning your own cannibalization of EWS' business.

Conclusions

So let's draw some overall conclusions, at least from a financial perspective (Table E). Politics are country-specific; but the primary focus of Open Access from my viewpoint is the political desire to de-monopolize, i.e. to take things apart. By contrast, the Exclusive Franchise model more or less left it alone and was based on the philosophy, "Look, you figure out the best way to serve the customer because the customer has trucks and we don't really care if you exist or not; you must stand on your own."

(TABLE E)	Open Access	Exclusive Franchise
PRIMARY FOCUS	Political	Customer
SECONDARY FOCUS	Customer	Investor
OPERATIONAL CONTROL	Regulator	Owner
INVESTMENT IN INFRASTRUCTURE	No	Yes

In the Open Access environment I would say that the customer benefits because at least with freight you have three or more companies, each going after every move and you can basically play them off against each other until there is no margin left. However, in the Exclusive Franchise environment, because the prime focus is on the customer the investor is rewarded because there is a margin to be earned if you can compete with trucks — as opposed to having other railways, with the same cost characteristics, competing for the same business.

Railway environments are diverse and certainly a lot of what we have experienced in the USA is not translatable; everything has to depend on local context. I would also argue that structure is extremely critical. I spoke earlier about culture and local partners; railway skills are great but it is more important to be integrated with your partners and with the local economy. It is easier to screw up culturally than to screw up technically.

As we look at new investment opportunities — and I can tell you that there are not a lot out there — the first thing to look at is: Is the government serious? Or is privatization being promoted as a way of making the government look busy even though they are not really serious, or is there some other agenda?

If that test is passed, then the next question is: Who will be your competition for this opportunity? In the case of Africa if we see the national railways of France or the national railways of South Africa as our competitor, we are not likely to compete because I stand before you to tell you that we do not have as much money as the government of France or the government of South Africa. More to the point, we have not been able to convince a broad body of investors that this is a great business.

Third, it is very important to have local partners. We have been prevented from making some of our gravest potential errors by having our local partners interpret things in a different way in terms of culture, context and politics. Without local partners, you are unlikely to see us involved.

Last but not least, I still think railway skills are important and bring significant value to the business but they are less important than the other factors.

If you go to our website, www.RRDC.com, you'll see a lot of what I've said in the "Position Papers" section and it would be very interesting to hear from you. We go out on a limb on many issues and if you've found my talk interesting, I think you'll find the website interesting.

At this point, I would like to close by thanking you for the opportunity to speak to you and I hope that we will have a good question-and-answer session and that you will prove me wrong on at least some of the points that I made tonight. This is the London School of Economics and we're all here to study railways. I consider myself a student of railways and I try to learn something everyday.

Thank you.

Question-and-Answer Session

[Q] As you describe joint ventures, how do you use contractors for maintenance of infrastructure, and day-to-day operations, and in doing so, are you subsidized?

[A] The quick answer is NO, NO and NO. When I describe joint ventures, what we usually have are local business people who are co-investors in the railway company. The railway company as a vertically integrated company usually does its own maintenance except when it is in its best interest to hire contractors. There are exceptions to that model but in general there is a very generic, vertically integrated railway with a diverse shareholder structure. So when I say joint ventures, what I mean is that we want to be in with local business people who know about the country's culture, politics, business, etc. That's the general model.

[Q] How did you know how your first overseas investment in Argentina would go, given the demand for rail transport and the Argentine economy is not noted for great successes? So is your investment in Argentina still delivering a return for you or, in light of 10 years' experience, would you have actually gone into that if you knew then what was going to happen to the economy?

[A] I would describe the Argentine investment as being a "fair" result; it was certainly strategic (by the way, a "strategic" investment is something that you do regardless of whether it is economic or not). With the benefit of hindsight, it was strategic for us to get involved in the overseas railway business. On an economic basis, it has done okay; the growth has not been what we would have liked because of the economic circumstances. However, in recent years with devaluation we have been doing better and the reason is because our customers pay us in dollars and our cost structure is in pesos. You should not expect a fast buck in the railway business in any country, and certainly we have not made a fast buck in

Argentina. In the long run it is an economically sound business because it started with such a low base that any improvement is dramatic and it has been fundamentally good for the country as well.

[Q] Do you know of any disintegrated railways that work?

[A] I guess by my definition it "works" if you invest in a disintegrated railway system, or whatever you want to call it, and it turns out to be a good investment; because if it doesn't, then you know that the model is not necessarily sustainable. In terms of disintegrated railways I think there are some examples; I think Estonia from a passenger perspective is a pretty good one. The passenger business in Estonia has been privatized separately and has been better off because it has investors who are focused on passenger marketing which is different from freight marketing. I would also point out that Estonian Railways recently sold its interest in the for-profit international passenger business for a price higher than a dollar which would suggest that that business has some value. That is one example where I think disintegration has not been a problem. Although I would say that the Estonian model is like the North American where the core business, which is freight, also has the infrastructure so at least there is no disconnect between freight and the infrastructure and that may be why it works so well. I think we do a good job of handling the passenger trains; I use Max's trains on a regular basis and I don't recall being late despite the growth of the freight business. I think it is a pretty good and symbiotic relationship. I'm sure there are other examples but they escape me at the moment.

[Q] Do you have to worry about repatriation of funds from places like Africa? How about corruption?

[A] It is going to be awhile before we repatriate funds from Africa; the reason is that you need to have profits to repatriate. At the moment — with gearing up from the moment of privatization, dealing with the recent cyclone, the famine, etc. — all of the cash flow has gone back into the company. I would have to say that we have not seen a lot of corruption. Everyone knows that we're a straight bunch of people, but more to the point that the railroad is poor. Corruption may be something you find in other businesses but railroads are not known for their wealth, so they are less likely to be a target than for example, electricity, telephones, and some more substantial parts of the infrastructure business. I hope that answers your question.

[Q] I'm trying to understand your point where you said that your Iowa Interstate has at least three other lines that parallel it.

[A] Yes, the Class 1 railways basically run from Chicago to the West Coast, running through Omaha on their way to the West Coast, and they are our competition.

[Q] What am I missing here — there are three railways that serve the same market but you consider yourself a monopoly?

My point was that there is no monopoly, except that we are a "monopoly" by European standards in Newton, Iowa.

[Q] The point I'm trying to understand is that you're saying that integrated railways are worth less because people are now competing with it and it is no longer a monopoly; but yet you have viable businesses in the United States that are monopolies but there is nothing stopping you from cannibalizing your competitors or your competitors cannibalizing you.

[A] I cannot disagree with you. Taking the European definition of a monopoly and applying it to Iowa, we are the "monopoly" in Newton, Iowa, to the extent that we are the exclusive railroad going into the Maytag washing machine plant in Newton. But that's not to say that Burlington Northern Santa Fe couldn't send a truck over to take that traffic 25 miles across to their main line. What I'm saying is that we have a competitive advantage against trucks or rail-truck intermodal service because we have steel wheel right into the siding, which means for that particular movement there is no trucker involved, and we don't have to subcontract truck delivery to landlocked customers on our railroad. These are little niches of rail-competitive advantage in terms of delivery right into the customer's siding; but by the European definition that would be a monopoly.

[Q] We still have those monopolies in the UK; many freight terminals are owned by the major freight carriers. What am I missing here? You're saying monopolies are good, but we don't have the opportunity to compete for this traffic.

That's a fine point of context. Let me take a coal movement for example — to the extent that there is a coal movement from a port to a power plant, I would say that it is a pure non-monopoly in that any train operator can rent a locomotive and haul that traffic from the port to the power plant. There is no place to hide in that environment. That's my point.

[Q] There's no place to hide between Chicago and Omaha, correct?

[A] There are the shadows between Chicago and Omaha; little branch lines and places where our railroad goes, and the only way the other guy can come over is with a truck. That's where these little profit margins allow the weakest and smallest railroad in that corridor to survive if not prosper. These are the economic underpinnings of the North American model. You're right; there are no monopolies in North America because there are trucks and there is truck-rail intermodal service. But the cost characteristics of a single wagonload private siding business allows one to make a profit, not a big profit, but a profit depending on the market.

[Q] How do you deal with currency fluctuations, fuel prices, etc.?

[A] Mostly we bear the full risk of currency fluctuations and fuel price fluctuations. We tried to get cute about five years ago with fuel price hedging on the Iowa Interstate and it was not a successful experiment for us. We're just not sophisticated enough to be able to do that in an effective way. We take a risk by coming into a country and relative to that fuel prices and currency fluctuations are also a risk, but they're less of a risk. In other words, we have a high tolerance for risk just by virtue of the business we're in, and fuel prices and currency fluctuations are relatively minor risks in comparison with some of the other risks that we take.

[Q] Can you expand on your relationship with CFM in Mozambique? On the one hand you're planning to take over their line into Nacala; on the other hand they're your partner from Nacala to Malawi.

[A] The deal with CFM is that in the case of the Nacala Corridor (this is in both Malawi and northern Mozambique), they act basically as an investor, as a contributor of assets, and to keep an eye on the interests of the State. Daily management of the railway is by the private sector group but the State has an economic interest in the business so if there are profits to be made, not only does the country have the benefit of having a functioning railway with all the strategic benefits of lower transportation, income taxes, etc., but also if it turns out to be a gold mine, then the State will benefit economically as well.

[Q] Can I get your feedback on the cost to maintain your right of way? The costs in this country are enormous as regards infrastructure. How do you manage to raise sufficient capital to maintain your infrastructure?

[A] We do not receive government assistance anywhere, as a general statement. In some cases there are low-interest loans that are available from government sources, but in general we are expected to finance our business — including infrastructure — from the business. If you enter into an environment like that, then you need to have your financing in place or else do transactions that are small enough that, in case there is a shortfall, you can fund it out of your own pocket. This is certainly the case in Guatemala. Like I said, we had thought that we would get funding because it is an essential infrastructure in a developing country. We were quite surprised to learn that we were an Environmental Problem; and the net result of that is that we had to fund it out of our own pocket. That's the way it is. Nonetheless, I like to think of our group as being "the people who brought the Guatemalan railway to its knees;" I say that because the Guatemalan railway was prone before we got involved! I'm not going to tell you that we have an infrastructure that is capable of running everyday without derailments. But the railway is running in such a way that customers are using us and the occasional derailment is not a factor in terms of whether we are going to make it or not. It is an imperfect solution but we have got the railroad running more or less on a shoestring budget.

[Q] Going back about three questions and your response, I think the issue of coal movement in this country is by virtue of the decisions about the size of ships, the ports they go to, the rates, or subsidies at various ports, and a very peculiar pricing system for the rail freight in the UK so I don't think it is quite as simple as "dog eating dog". Secondly, given that one is only competitive over relatively longer distances and that your washing machine manufacturer plant seems within range of other railways, how much traffic do you take out which passes onto other carriers to get to its destination and what percentage do you see to its final destination?

[A] Of the direct-rail traffic, as opposed to the stuff that goes in and out on the highway, I would say 100% of it is interlined. In other words, we do not take it to its final destination; everything we handle we hand off at Chicago or Omaha to a connection. We're a feeder line. One way to look at it from the Maytag perspective is that we're a feeder line that runs east out of Newton, and we're a feeder line that runs west out of Newton. Think of it this way: if it were more economic for the railways that parallel us to send trucks in to bring it to the nearest railhead, they would do so. But because of the efficiency of delivery to private rail sidings, we have this little niche of substituting for the truck haul to the railhead by taking it rail-direct; and that's where the profit margin is.

I do not know a lot about the Speedlink business, but it seems to me that that could have been a good business because it was wagonload — siding to siding — as I understood it. That would have been a very interesting business if it had survived.

Any time you introduce a truck into the origination or termination of a shipment, in this environment you've left probably 25% of the revenue on the table right from the beginning, especially when we talk about putting three truckloads into a rail wagon. Whenever you do not go directly to the customer's siding, you have to pick up three truck shipments to get from the railhead to the customer. I would be the first to say that it doesn't look great to see a shunting locomotive hauling two or three wagons; but it would still be cheaper than 9 trucks. That was the point.

[Q] Wasn't there a more optimal solution for the locomotives in Estonia, such as re-engining the existing fleet?

[A] No, we did not have the time. The simple solution was to get used locomotives into service as soon as possible. These are off-the-shelf locomotives that are 10-15 years old; there was probably a more optimum 30-year engineering timeline in terms of what would have been the optimum. But financing was not unlimited and it was basically a race against time because Estonia competes with Latvia, Lithuania and Russia for transit flows. And we and the ports are trying very hard to maintain Estonia's competitive position even as new ports are being built in the region. So the best disincentive for someone to build yet another port in Russia is for Estonia to have the capacity to handle that traffic today. So there is a high emphasis on speed in terms of what we needed to accomplish.

[Q] Can I ask you about labor costs and local practices. In the European environment or, in this case Soviet Railways, do you have any pearls of wisdom in this regard?

[A] I come from an environment where the deck is distinctly stacked against labor, and I would say punitively so. If you buy a branch line in the USA, you get to fire the employees and hire them back tomorrow at whatever wages you choose. If you own a short line railroad and you sell it to someone other than yourself, the buyer can fire the employees and hire them back the next day at whatever wages they choose to pay and the government will issue a restraining order to prevent them from striking. I think it is unfair and we have been unable to compete with people who do that in the US, which is why RDC has not been a successful company in the USA.

But each country is case by case. In the case of Estonia, we bought the stock from an existing company and essentially maintained all of the existing contracts. So we are incrementally negotiating new labor agreements as they come forward. In the case of Argentina, we went from 12,000 people to 2,000 the day we started operations; but of the 2,000 people we hired, we doubled their wages. In case of Guatemala, we gave the employees a raise when they were hired, but we have since not given them a raise because of the company's economic condition.

It depends on the circumstances but I think, in general, labor really is case by case; I would not want to make any broad generalizations about any sort of model as to how you deal with labor. We try to be fair and transparent and we also have to accept whatever the local, legal and business environment is in terms of how to deal with it. I have the reputation as being relatively pro-labor among my colleagues in the USA and that has generally been a competitive liability, because it's meant that we are not competitive since our competitors will fire people and hire them back at lower wages. We have not done that.

[Q] Do you see opportunities for your company in the United Kingdom?

[A] No.

[Q] Why not?

[A] We came here in the mid 1990s and saw two distinct types of investors emerge. One were the bus people who were going to bring Dynamic Thrusting Private Sector Management from the bus industry to the railways, and the other were the experienced railway managers who had been working in this environment all of their lives. Neither group really saw a benefit to associating with a company like us; and I think rightfully so because this is primarily a passenger environment and we do not "do" passenger service in the USA. We did have one flirtation with one of the companies who was bidding for a freight company, but it turned out that all they wanted to do is have us sign a Confidentiality Agreement so we wouldn't compete with them for that particular freight business. So it was not something that really got off the ground. I would encourage you to visit our website and view my comments in 1995 about the direction I thought that at least the freight business would take and draw your own conclusions as to whether we were right or wrong.

[Q] You very succinctly observed earlier that the railways in Estonia go to Moscow and not Brussels; do you see any threat or opportunities to the way that you do business or the structure of the business in Estonia given the EU's promotion of vertical separation?

[A] It would be difficult to imagine how you would take a privately owned, vertically integrated railway in Europe which does have an Open Access scheme in place — there is an Open Access capacity allocation and pricing mechanism in place in Estonia – and all of a sudden convert it into a European-style Open Access country. It would essentially be a de-facto nationalization and I think that would be very complex.

Perón nationalized the railways in Argentina in 1947; those railways were pretty marginal and at the beginning may have benefited from state ownership because the value of them was fairly low. But in the case of Estonia, the railway is functioning today with a better safety record, handling more traffic, and making the ports more competitive than when the State owned it. I'm not sure what the benefit would be of State ownership of Estonian Railways. If Open Access is imposed by fiat from Brussels, that would be a de-facto nationalization.

[Q] In the various countries where you are operating, have you found that the government in these countries is your partner, helping you to succeed, or just seeking to get a transaction out of the way and then fostering competition by trucks, and so on? Has there been a partnership — negative or not?

[A] In general, the countries in which we are operating were quite happy to be out of the railway business. In Guatemala it certainly was irrelevant because the railway was losing money, it was closed and it had nothing to do with the economy. I think in general that the governments of the countries in which we operate are looking upon us as their partner, including having us run the business in such a way that demands for financing from them either don't occur or are certainly minimized. So in that respect I think it is a very good relationship; it is a realistic relationship and it solves two problems for the government: (1) how to make the economy more competitive; and (2) how to eliminate drains from its treasury. Unfortunately, the environments in which we operate don't exclude cyclones, etc.; but for the most part they should function within the private sector without having to go to the government for largesse.

Thank you.

[END]