VIA Rail Canada

VIA RAIL CANADA

SUBMISSION WITH RESPECT TO THE CANADA TRANSPORTATION ACT REVIEW
March 2015

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INTRODUCTION

VIA Rail Canada ("VIA" or "VIA Rail") appreciates the opportunity to contribute to the review of the Canada Transportation Act (the "Act"), the framework legislation that sets the National Transportation Policy for Canada's transportation system. In particular, we welcome the possibility of expressing our views on the capacity and adaptability of the Canadian transportation system with regards to passenger rail transport and the ease and efficiency with which people can travel in pursuit of economic growth and development. We will focus on the optimization of the rail sector through the safe and efficient operation of freight and passenger railways. Canada's prosperity is particularly dependent on a well-developed, fluid and efficient transportation system. Rail transportation has always been an enabler for economic development.

VIA Rail provides Canadians with accessible and affordable mobility. In large centers it provides an affordable mass transit alternative. In many smaller towns, it is the only available alternative to the car. VIA also offers a redundancy in the transportation mix. For example, in 2008, VIA Rail reached a ten year peak in ridership of 4.6 million passengers, thus confirming VIA Rail's essential role as a public service.

VIA Rail will express its views as to how federally-regulated passenger rail services can be delivered to meet travellers' needs while minimizing costs to the public purse, pursuing a safe to safer agenda, and optimizing Canada's rail infrastructure.

VIA believes that, where numbers warrant (in particular in the Toronto-Ottawa-Montreal Corridor ["TOM Corridor"]), the optimization of Canada's transport rail infrastructure requires:

- Building out a dedicated passenger rail system within the TOM Corridor seamlessly linking commuter, regional and inter-city rail services with other modes of passenger transport;

- Making a dedicated passenger rail system an attractive investment opportunity for private sector participation through Public-Private Partnerships (P3s);
- Giving VIA Rail the corporate powers to execute and facilitate these imperatives and fulfill its mandate through enabling legislation similar to that of other Crown corporations; and
- Amending the Act to provide a more efficient and effective regulatory process to resolve disputes between railways;

The above will have a positive impact on the movement of goods and people and contribute to Canada's global competitiveness by making changes to the current mixed use rail infrastructure. All G7 countries, except for Canada, have dedicated passenger rail lines. Currently just over half of the G20 countries have or have under construction dedicated passenger rail lines. Within the next ten years all other OECD countries will benefit from dedicated passenger rail infrastructure. It will:

- Relieve road congestion, particularly in and out of major urban centers
- Boost economic development and benefits along the railway corridor
- Contribute to the decongestion of Canada's mixed use freight and passenger rail infrastructure
- Improve the operational efficiency and capacity of freight and passenger rail service providers
- Deliver a safer rail infrastructure and a more environmentally sustainable rail transportation system
- Maximize the ridership and revenue potential of passenger rail routes where market demand warrants it while continuing to provide accessible and affordable passenger rail service to all Canadians, including those in remote areas
- Reduce, and possibly eliminate, passenger rail's reliance on operational funding from the Government of Canada
- Focus Government of Canada funding for passenger rail service on capital expenditures such as land, rail rights of way, rail infrastructure and rolling stock acquisition
- Enhance the safety of passenger rail service.

At this time, VIA Rail does not promote a high speed (220 mph) rail project in the Toronto-Ottawa-Montreal corridor (« TOM »). It believes that the establishment of a high frequency train through acquisition and construction of a railway corridor dedicated to passenger travel at current speeds (177 Kmh) will allow for greater reliability (i.e., on-time performance), more convenience (i.e., more frequencies and shorter trip times) and affordability (i.e., lower cost to build thus lower burden on taxpayer and user). Lastly, this approach also provides a significant time-to-market advantage.

ECONOMIC BENEFITS OF INTER-CITY MOBILITY AND THE BUILDING OF DEDICATED PASSENGER RAIL INFRASTRUCTURE

Economic benefits of passenger rail can be split between indirect and direct, with a variety of metrics to measure these impacts[1]. Indirect impacts include effects on mobility and the socio-economic impact of various projects. Direct impact includes factors such as financial returns, persons employed, expenditures and taxes.

Efficient inter-city and regional rail transportation brings the benefits of conglomeration to multiple cities by effectively unifying them. The benefits of urban proximity are well documented including labour market pooling, knowledge dissemination, increased competition leading to innovation, and cooperation[2]. Mobility between cities allows them to effectively unify themselves from an economic point of view and, for segments of the economy, create new virtual agglomerations. Akin to communications infrastructure, efficient rail transport infrastructure reduces the effects of distance by allowing for optimum speed and trip times and demand-based frequencies.

In some rural and smaller communities, passenger rail is the only alternative to the car in order to obtain mobility. While large cities may be well serviced by airlines and buses, for these smaller communities along the railway lines, this is often not the case.

As well, road congestion is a drain on the economy. For example, the cost of congestion in the GTA ("Greater Toronto Area") is estimated between six and eleven billion dollars annually[3]. These estimates include the cost of being caught in traffic as well as the effects of urban agglomeration[4]. One can easily estimate the annual figures for Montreal and Ottawa based on proportionality of population at seven and two billion dollars respectively. While much is being done at the municipal level (commuter transit) to alleviate the problem, more must be done at the inter-city level to contribute to the solution.

In the absence of a dedicated passenger rail infrastructure, inter-city passenger rail traffic has not increased since 2000. This is mainly due to railway congestion, leading to deteriorating punctuality of VIA's trains, together with capacity limitations (e.g., limited frequencies) imposed by the host railways on VIA in key areas of the network. These are consequences of sharing of rail infrastructure between freight and passenger traffic. Between 2000 and 2012, road traffic from Ottawa and Toronto increased twenty percent to 320,000 cars daily[5]. As well, car traffic entering Toronto from the 401 has increased eight percent[6]. In both cases, inter-city trip car market share has increased.

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[1] National Railroad Passenger Corporation. Amtrak Fiscal Year 2010 Comprehensive Business Plan, Washington, D.C., February 2010.
[2] Cars congestion and costs: A new approach to evaluating government infrastructure investment, C.D. Howe Institute, Commentary No. 385, and the Martin Prosperity Institute, University of Toronto, How High Speed Rail Can Help Expand the Economy, by Prof. Richard Florida.
[3] C.D. Howe Institute, Commentary No. 385, Cars, Congestion and Costs: A New Approach to Evaluating Government Infrastructure Investment, Benjamin Dachis, p 22
[4] Cars congestion and costs: A new approach to evaluating government infrastructure investment, C.D. Howe Institute, Commentary No. 385, p 4
[5] Atlas des transports du Gouv. du Qc - Débit de circulation des années 2000 à 2012
[6] Traffic volumes 1988-2010 - Ontario Ministry of Transportation

Passenger rail can contribute significantly to reducing road congestion. It is estimated that approximately 63% of train users would use a private vehicle or a rental car if the train was not available[7]. VIA Rail contributed to reducing car traffic in the Quebec City – Windsor Corridor by 2.3 million cars based on its 2013 Corridor ridership of 3.6 million passengers.

By running a high frequency service using its current equipment on dedicated tracks, VIA Rail estimates that it would contribute to reducing annual car traffic in the Montreal-Toronto Corridor by at least 4.3 million cars. VIA Rail's ridership between Montreal and Toronto would almost triple to 6.9 million passengers.

While it is hard to measure the impact that VIA Rail has in its current form on the economy, we can estimate the economic benefits of a dedicated track project between Toronto, Ottawa and Montreal.

Benefit	Estimated Result
Permanent Employment	302,300 P.Y.*
Project Direct Employment (Construction)	42,000 P.Y.
Project Indirect Employment (Other)	63,000 P.Y.
Increase in Federal Income Tax Base (NPV)	$4.6 Billion
National Income Increase	$30.5 Billion
Property Value Increase	$8.6 Billion
Property Development around Stations	$3.5 Billion
Total Net Economic Benefit	$12.4 Billion
Passengers Served Annually	6.9 Million (2013 ridership 2.1M)

*P.Y. = person year

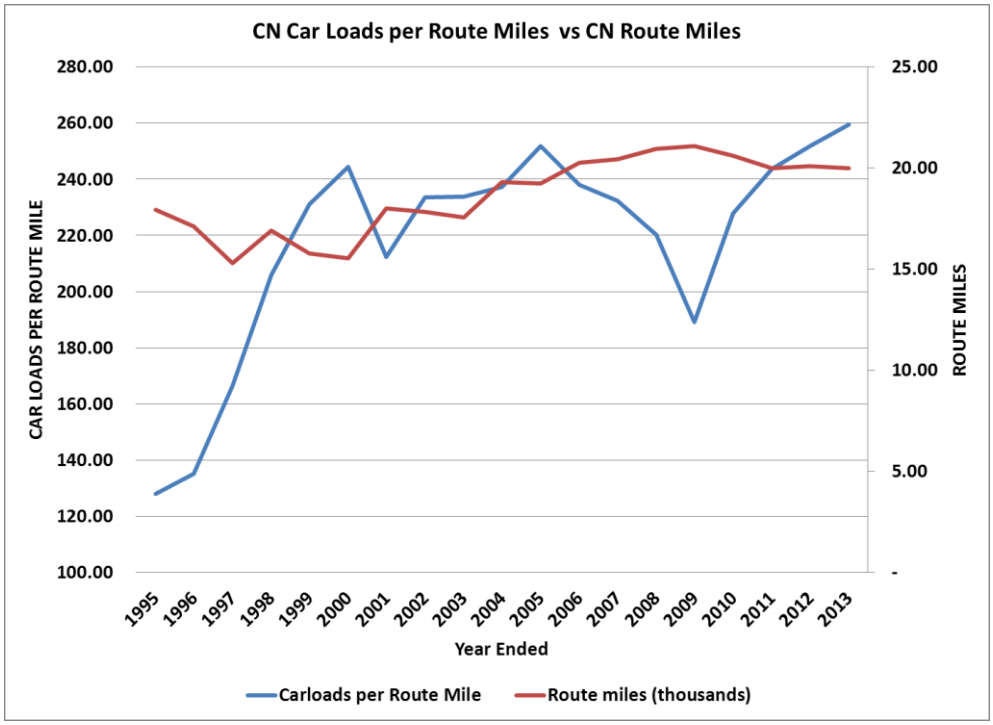
Again, these numbers reflect a high frequency service using current equipment operating at 177 Kph on dedicated passenger track. High-speed equipment and infrastructure would generate higher benefits at a higher cost.

NETWORK OPTIMIZATION THROUGH NETWORK SEGREGATION

Where freight and passenger volumes are very high, there is a need to optimize rail networks by segregating freight and passenger services.

Notwithstanding a certain respite during the recession of 2009, between 1995 and 2013 freight car loads per available route mile have doubled putting substantial strain on the Canadian mixed use rail network.

[7] Numbers derived from: Measuring the Benefits of Intercity Passenger Rail: A Study of the Heartland Flyer Corridor, Southwest Region University Transportation Center Texas Transportation Institute, April 2010, p 116



Segregating passenger service from freight service would greatly increase the capacity and operational efficiency of both the passenger and freight networks. Freight trains run at an average of 25 mph whereas passenger trains can run at up to 110 mph (177 kph). Trains that travel at different speeds reduce capacity on a rail line[8]. In fact, speed differentials in traffic introduce delays to the system and decrease the capacity of the line.[9] It is estimated that a passenger train takes the place of approximately five freight trains[10].

Mixed use networks reduce the operational speed of passenger trains. Each segment of railroad track has speed limits determined by its track quality, super-elevation and curvature, grade, and signaling system. Existing VIA Rail passenger equipment can operate at a maximum speed of 110 mph. Currently, in the TOM Corridor, VIA trains operate at an average speed of approximately 70 mph. In 1991, over 90% of the TOM Corridor allowed VIA Rail trains to travel at the maximum speed for passenger trains. Today, that has dropped significantly to under 80%.

Mixed use networks lead to increased costs for freight and passenger operators. Freight train tracks are required to support long, slow heavy trains whereas passenger tracks support short, fast, light trains. Hybrid networks require freight operators to maintain track characteristics that are superior to their needs. Conversely, to make up for the hybrid nature of the tracks, passenger operators require

[8] Best Practices in Shared-Use-High-Speed Rail Systems, MTI Report 02-02, June 2003, Andrew Nash, P.E. Mineta Transportation Institute, College of Business San José State University p. 27
[9] Impact of Passenger Trains in Double Track Networks, Samuel L. Sogin University of Illinois, Christopher P.L. Barkan. PhD, University of Illinois, Yung-Cheng Lai, PhD. National Taiwan University, Mohd Rapik Saat, PhD University of Illinois, Proceeding of the 2012 Joint Rail Conference JRC 2012 April 17-19, 2012, Philadelphia, Pennsylvania, USA
[10] Route Capacity Study, Quebec-Windsor Corridor (Montreal-Toronto Segment) Final Report, Prepared for VIA Rail Canada Inc. & Canadian National Railway, by Canac Global Railway Solutions, January 17, 1997, p. 39

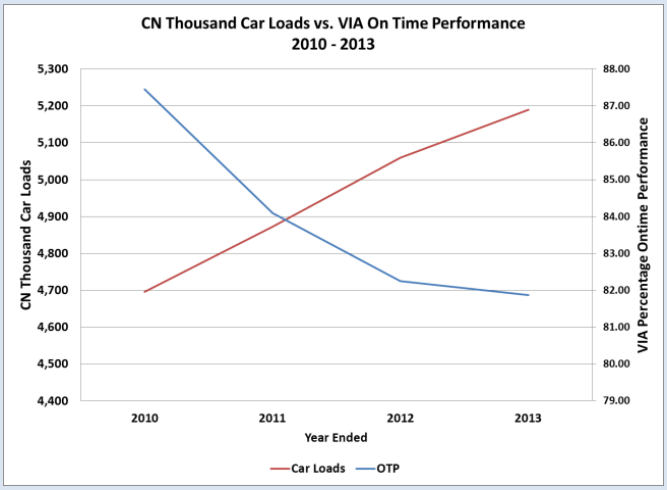
costly specially-engineered equipment to achieve maximum speeds, which, due to congestion, are rarely achieved.

Tracks maintained for freight in many cases provide a rough and unpleasant ride for passengers. While freight trains do not require a smooth ride, passenger experience is greatly diminished by track imperfections. Furthermore, major imperfections can produce rail car movements that can lead to passenger and railway staff injury. Track improvements aimed at customer comfort are of no use to freight operators.

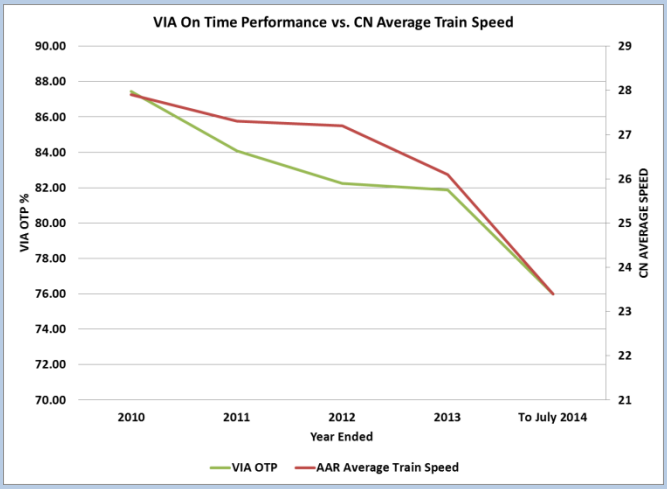
Moreover, any enhancements or repairs made to hybrid rail networks aimed at improving the safety, comfort and speed of passenger trains are paid for by passenger railway. While such improvements may, in rare cases, also benefit the freight operator, the cost is borne solely by passenger railway companies and the useful life of these track improvements is greatly reduced by freight operations. It represents a wasteful use of capital. In addition, in the Canadian context where most passenger railways are public agencies of federal, provincial and municipal governments and freight railways are private concerns; these expenditures constitute indirect subsidies to private industry.

The TOM Corridor is an area where the rail network will soon be at the limit of its capacity and suffer from mixed use inefficiencies. While the 2009 recession gave the network a certain respite, at current growth rates, freight volumes on the Toronto-Montreal line will soon reach the network's operational limits as a hybrid system

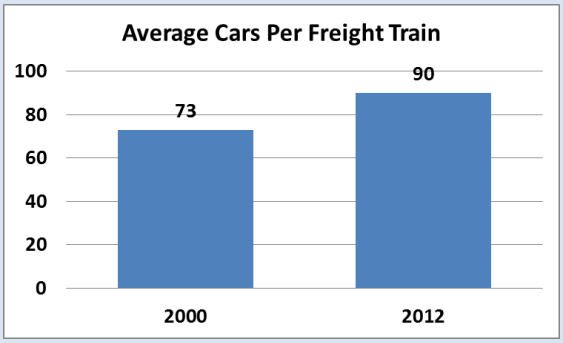
As freight volume increases and the network reaches congestion, passenger train on time performance ("OTP") (an essential component of service) is adversely affected.



Freight trains are not immune to the effects of congestion. Freight OTP is measured in hours rather than minutes and less crucial to freight operations. Thus, average speed of trains is a better measure of freight network health.
It is often said in the industry that passenger rail OTPs are the proverbial canary in the mine for the health of the overall system. Since the end of the recession, freight's average speed has been declining in perfect correlation with VIA's deteriorating On time Performance.



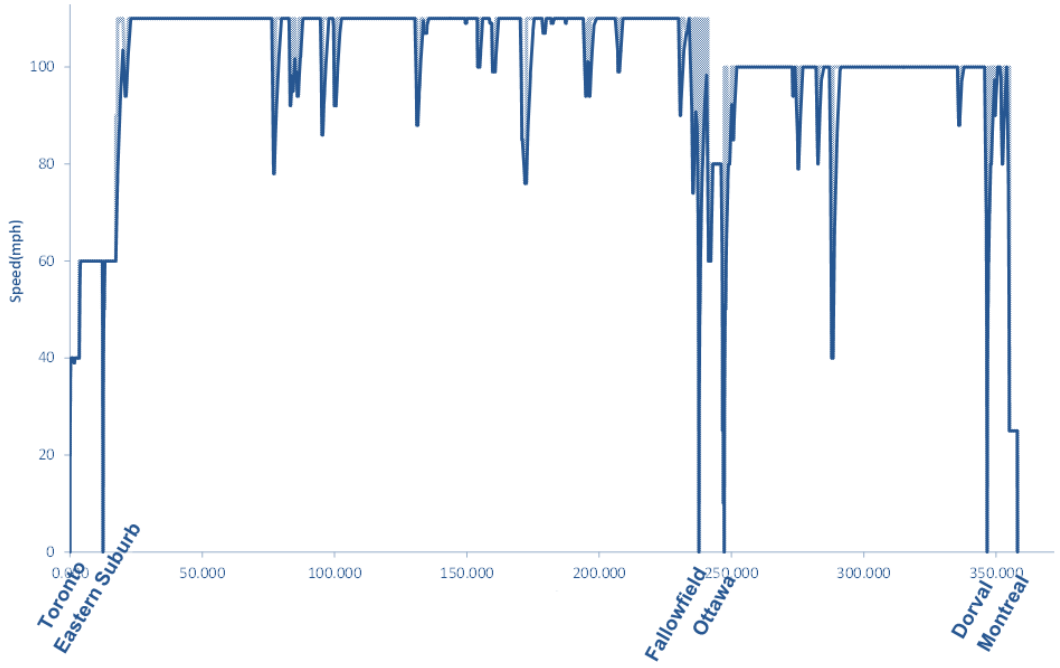
Longer trains reduce network flexibility that would benefit passenger and freight cohabitation. Between 2000 and 2012, the average number of cars per freight train increased from 73 to 90[11]. Most sidings are between one and two miles long. This increase in freight train length means that many of these sidings, which were used by freight trains to allow other trains to overtake them, are now too short for this maneuver - thus increasing conflicts between passenger and freight.



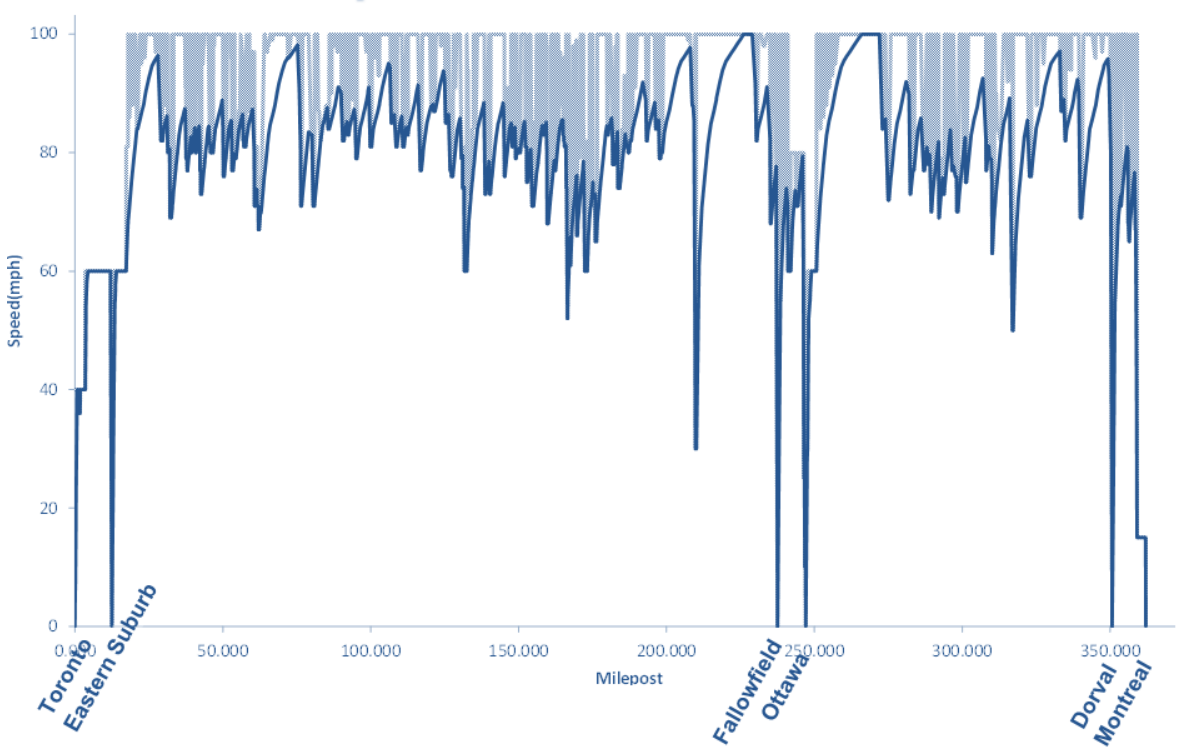
The inefficacy of mixed use or blended networks is easily noted by referencing speed validation graphs for a dedicated passenger train link between Toronto-Ottawa-Montreal and one for a Toronto-Ottawa-Montreal hybrid route. Spikes down to zero represent stations. Other spikes are places where the train must slow down because of curves, intersections or other track related obstacles. The top line represents the train achieving maximum speed. It's worth noting that every slowdown is followed by an inefficient and costly fuel-consuming acceleration. The mixed-use graph represents optimal scheduled speeds and does not take into account further additional slowdowns due to freight train congestion.

[11] 2012 Rail Trends, Railway Association of Canada, p30

Dedicated Passenger Track Speed Graph



Mixed Use Passenger Track Speed Graph



PASSENGER SERVICE ON FREIGHT INFRASTRUCTURE: ENGINEERING ISSUES

The current hybrid freight / passenger network imposes inferior performance on both freight and passenger operators. Hybrid rail networks are by definition economically inefficient because they assume you can engineer a network that meets the needs of the slow and heavy (freight) and the fast and light (passenger trains). In the end, freight rail operators maintain tracks at levels they do not need and passenger rail operators operate at sub-optimal speeds.

We will endeavor to illustrate this fact by looking at four elements of track engineering:

1. Classes of Track;
2. Curves: Elevation and Speed Limits;
3. Signaling Issues; and
4. Crossing Issues.

Finally, we will provide a case study for the Toronto-Montreal service considering these elements, the effects of congestion and frequency rationing.

CLASSES OF TRACK

Speed limits on tracks are determined by the class of track, track geometry and the maintenance condition of the track. Currently, in Canada, there are five classes of tracks in the Transport Canada regulations with defined maximum allowable train speeds allowed on tracks that meet all of the requirements prescribed in the regulation.

Current Canadian Operating Environment (in Mph)		
	Maximum allowable operating Speed for freight	Maximum Allowable operating speed for passenger trains
Class 1 track	10	15
Class 2 track	25	30
Class 3 track	40	60
Class 4 track	60	80
Class 5 track	80	95 (100 for LRC Trains)[12]

Proposed Additions to the Current Canadian Operating Environment	
In miles per hour	Maximum Allowable operating speed for passenger trains
Class 6 track	110
Class 7 track	125

[12] LRC is an acronym for Light, Rapid, Comfortable trains. LRC are diesel powered and designed to provide 125 mph services.

Where freight companies maintain Class 5 tracks, it is essentially to satisfy the needs of passenger rail. For example, between Montreal and Toronto, CN maintains Class 5 tracks yet they do not operate any of their trains above 65 mph. Passenger railways like VIA Rail, AMT (Montreal) and GO Transit (Toronto) cover the cost of the additional maintenance through usage payments.

Class 5 tracks are not equipped with equilateral turnouts. Turnouts are used to move from one main line to another. Standard turnouts must be taken at speeds below 45 mph. whereas equilateral turnouts can be taken at much higher speeds. In fact the vast majority of freight trains travel at speeds substantially inferior to the posted limit due to their length and weight. Passenger railways could use equilateral turnouts to maintain their speed while changing tracks.

Passenger trains travel on Class 5 tracks that are suboptimal to their needs. Modern standard train sets (non-high speed) can reach speeds of up to 150 mph. In the US, class 6 tracks-allowing for 110 mph passenger service are found on Amtrak's Northeast Corridor between New York and Washington, D.C. Amtrak has also received special "Class 7" status for 125 mph operation (with the launch of high-speed Acela Express trains) and "Class 8" status for 150 mph on specific segments of the Northeast Corridor.

To reach and hold Class 6, 7 or 8 tolerance levels with minimum upkeep, tracks must be engineered to withstand loads without permanent deformation. They must have sufficient vertical and lateral strength (stiffness) to cope with the static and dynamic loads (P1 and P2 forces) exerted by the equipment operating at higher speeds. Repeated use of such tracks by heavy laden freight trains would cause considerable deterioration and entail extensive maintenance. It follows that tracks built or upgraded to high standards are required for fast passenger trains, and that these tracks should be dedicated exclusively to passenger rail.

We ask that the Review Panel recommend that the Government of Canada should introduce Class 6 and Class 7 regulations for passenger dedicated railway tracks in Canada to allow passenger railways to operate their current equipment at its maximum speed.

CURVES: ELEVATION AND SPEED LIMITATIONS

Rail engineering mitigates the negative impact on speed due the effect of curves on allowable speed by implementing super-elevation which is defined as raising the outside track much in the same way that a road can be banked to allow for higher speeds. On hybrid tracks such as on the CN Kingston Subdivision between Toronto and Dorval, curves affect freight trains in the same way as they affect passenger trains, assuming the super-elevation on the outer rail is the same. The only difference is in the allowable cant deficiency[13] of the trains. In both cases, the permissible speed around curves depends on the degree of curvature. The following gives an indication of the relationship between the speed of freight trains and the degree of curvature:

1 degree curve = up to 65 mph
2 degree curve = up to 46 mph

[13] See definition of Cant Deficiency in Appendix 6

3 degree curve = up to 37 mph
4 degree curve = up to 32 mph
5 degree curve = up to 29 mph
6 degree curve = up to 26 mph
7 degree curve = up to 24 mph

Freight companies have no economic incentive to straighten out curves that are one degree or less as their trains run at less than 65 mph. However, passenger trains are designed for speeds of 110 mph. Thus, when travelling on a Class five track, the effect of a one degree curve causes a mandatory 41% reduction in speed.

Elevation of the outside track up to the acceptable regulatory six inches can increase the allowable speed by up to 75%. Transport Canada regulation states the formula for acceptable speeds at various elevations. At various curvatures and incremental elevations the acceptable speeds are as follows:

ALLOWABLE SPEEDS BASED ON CURVATURE AND ELEVATION (MPH)

CURVE IN DEGREES	ELEVATION IN INCHES						
	0	1	2	3	4	5	6
0.5	92	106	119	130	141	151	160
1	65	75	84	92	100	106	113
1.5	53	61	69	75	81	87	92
2	46	53	59	65	70	75	80
2.5	41	47	53	58	63	67	71
3	37	43	48	53	57	61	65
3.5	34	40	45	49	53	57	60

On hybrid tracks the freight carrier has no incentive to undertake curve mitigation measures such as elevation because they have no need for the added speed. Furthermore, high elevation combined with heavier trains can lead to derailments.

As a result, passenger carriers cannot operate at higher speeds allowed by super-elevation notwithstanding the fact that they could maintain high elevation tracks at low costs due to their lighter trains. Building super-elevation on a hybrid network would lead to much higher maintenance costs due to the negative effect of heavy freight trains on super-elevated tacks.

Generally speaking, existing railways are not designed for fast passenger trains and impose constraints that cannot be eased readily while keeping inside the right-of-way. For example, there are 218 curves of various degrees on the CN Montreal and Kingston subdivisions between Montreal and Toronto. These considerations are key factors in concluding that freight-owned railroads are not suitable for passenger trains and explain the preference for routing passenger trains onto tangent dedicated alignments.

SIGNALLING AND SAFETY ISSUES

The most elaborate signalling system currently in place on tracks shared with freight trains is based on track circuits to detect the presence of trains, and wayside signal lights to display the status of the track blocks ahead. Permanent and temporary slow orders are given to the enginemen as written instructions. There is no automatic enforcement for either displayed signals or written orders.

To maximize the safety of passenger rail operation at speeds in excess of 100 mph, in-cab signalling, along with some form of Automatic Train Control (ATC) should be installed. However, Automatic Train Control would be of little use to freight operators given their operating speed and is therefore not a worthwhile investment for them.

With dedicated tracks, VIA could install such a safety system. An ATC would (1) determine track occupation and set routes; (2) display the same or a more restrictive signal aspect in the cab; (3) automatically initiate braking if a restrictive signal aspect is passed and the engineman fails to initiate braking.

CASE STUDY: TORONTO-MONTREAL

Ridership is a direct function of service. Service in the passenger rail industry can be summarized in three variables measured within a safe operating environment:

1. Reliability;
2. Convenience (Frequencies); and
3. Speed (Trip time).

While reliability and convenience are primarily affected by congestion and state of repair of the infrastructure, speed is affected by class of track, track configuration and congestion.

Moving to a Class 6 dedicated track from a Class 5 shared track could reduce travel time between Toronto to Montreal by up to 1'40" and allow the frequencies necessary to increase ridership. We have analyzed the situation on the Toronto-Montreal route that falls within the Saint-Hyacinthe, Montreal, and Kingston subdivisions.

These are Class 5 rails that have not been optimized for passenger rail speeds. Furthermore, the Toronto-Montreal route also has bottlenecks such as at the Coteau Junction as well as the approaches to Toronto and Montreal. These bottlenecks limit the number of trains per day and track speed VIA could achieve[14].

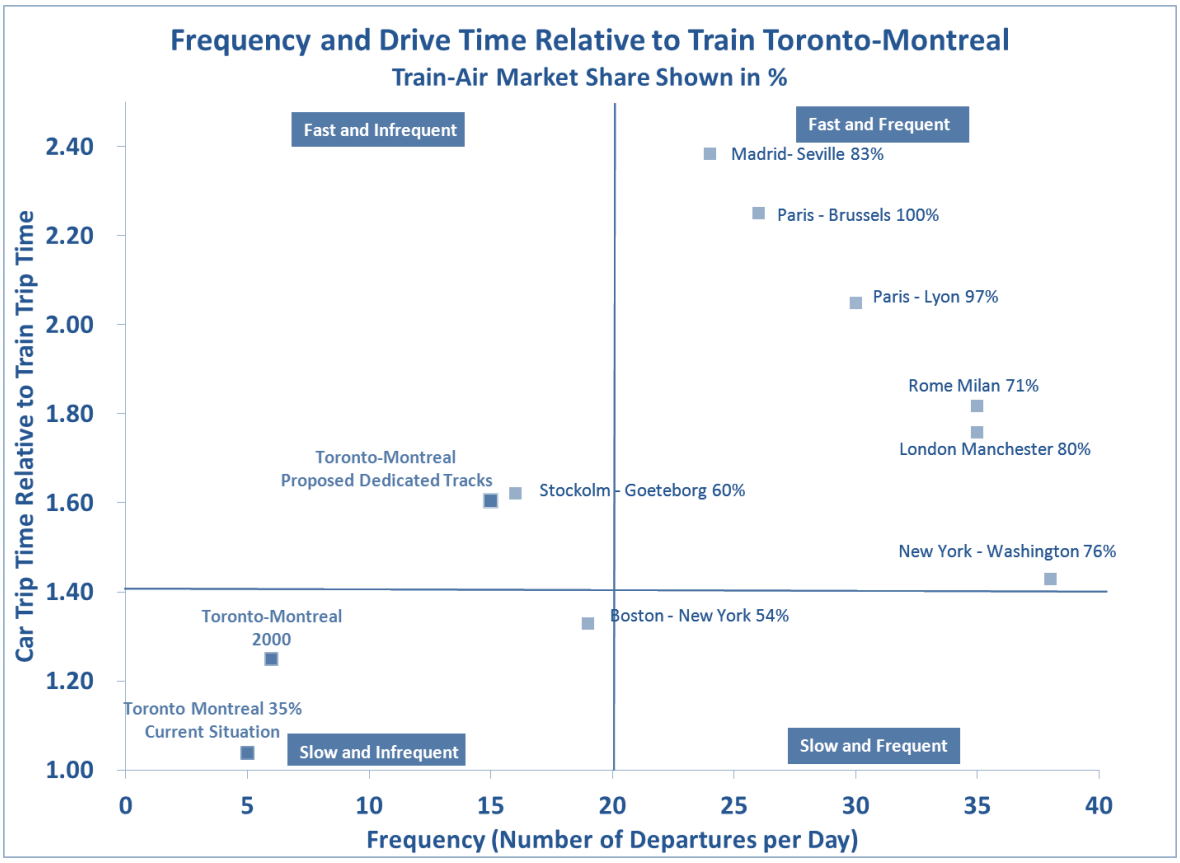
[14]For the purposes of the following table Trip Times are determined as follows

- Optimized – Theoretical trip time with all curves elevated or straightened to allow maximum speed
- Current Alignment – Best theoretical time based on current track alignment, bottlenecks and crossings
- With Congestion – VIA scheduled time which includes operating buffers including those for congestion
- With Congestion and Delays – VIA scheduled time plus 15 minutes tolerance to determine whether a train is on time for OTP purposes.

Current and Estimated Performance of Passenger Trains on Class 5 and Class 6 Tracks

	Class 5				Class 6	
	With Congestion and Delays	With Congestion	Current Alignment	Optimized	Optimized	Optimized Dedicated
Trip Time (Hrs. Min.)	4:49	4:34	3:34	3:25	3:07	3:07
Average Speed	69	72.8	89.2	97.1	106.5	106.5
Frequencies	5	5	5	5	6	15

To put these limitations into perspective, we have graphed the various levels of service on a frequency/speed graph. Speed on the graph is defined as the drive time over train trip time of a journey. For example, the car trip time for Paris-Lyon is twice the train trip time. We have included, for reference, various train services and their market share of Air/Train travel. Unfortunately, these are the only market shares available.



A train service operating on a Class 6 track would primarily compete with the automobile. It is obvious from the rising market share numbers as you move up and right on the graph that fast and frequent trains garner higher ridership. In fact, the number of frequencies is the factor with the highest impact. For example, comparing the Stockholm-Goeteborg train to the New York – Washington train we can

see that the latter is slower yet has a higher market share due to additional frequencies. Additional frequencies are currently denied VIA Rail by their freight hosts.

We believe that the blend of sources of ridership depends on the travel distance and speed of the train operated. As the rail speed reduces it has a lower impact on the air mode and a higher impact on the road mode. Thus, for example, at a class 6 level where a rail trip time between Toronto and Montreal would be 3:07 versus a 1:00 trip time for the air mode, the majority of the market share gain would be a reflection of an increase in riders choosing a public mode over the automobile to the benefit of rail.

In conclusion, the use of freight lines for passenger rail services is inefficient for both types of services. To achieve optimal track speeds for passenger services, freight operators would need to maintain tracks at a level above their needs. Conversely, running passenger services on freight optimized tracks adversely affects quality of service and, therefore, ridership as well as the economics of the passenger carrier.

The combination of speed restrictions, track congestion and frequency rationing has a highly negative impact on ridership and, consequently, VIA's financial viability and service relevance. Only by segregating the current hybrid operating environment can we hope to optimize rail resources for the benefit of passengers, shippers and the Canadian economy as a whole.

SUBSIDY MINIMIZATION THROUGH INCREASED VALUE PROPOSITION

The road to subsidy minimization is through providing value to travellers. Conversely, service cuts do not lead to proportional cost efficiencies because of the high ratio of fixed costs to variable costs in the train industry. Service cuts tend to deteriorate the cost efficiency of the remaining service. For example, in 1989, VIA Rail services were reduced by 50% but the resulting operating loss reduction (shown in the following year) was only 25%. This resulted in a per passenger mile cost increase from $0.31 to $0.46 on the remaining services. Conversely, in the five year period following the cuts, passenger volume increases lead to a reduction of the per passenger mile costs back down to $0.33.

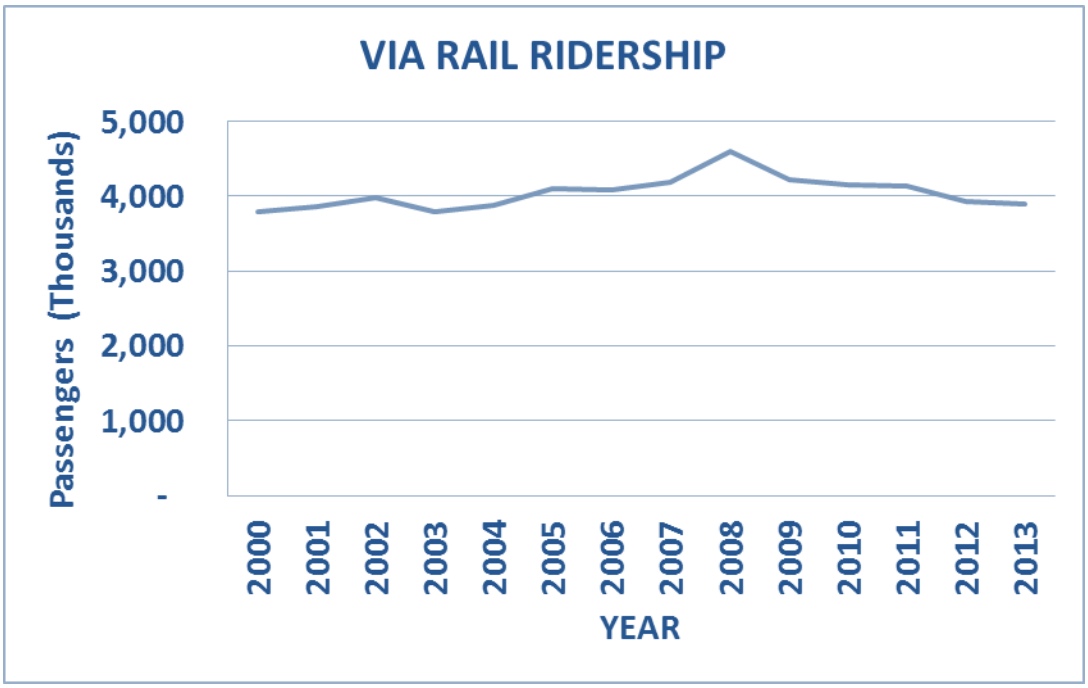
As mentioned previously, service in the passenger rail industry can be summarized in three variables measured within a safe operating environment:

1. Reliability;
2. Convenience (Frequencies); and
3. Speed (Trip time).

The preceding diagram (p.15) illustrates the relationship between Trip Time/Frequencies and market share. Using a number of train services around the world and the Train-Air market share as a proxy for overall modal market share, it is obvious that fast and convenient (i.e. frequent) services outperform slow and infrequent services from a ridership point of view. Using VIA Rail's Toronto-Montreal route as

an example, we can see that, because of speed and frequency restrictions imposed by congestion and track engineering, VIA Rail's service is sub-standard. In fact, speed and frequency have steadily deteriorated since 2000 leading to today's low market share of 35%. Using VIA Rail's current proposal for dedicated passenger tracks at current equipment speed of 110 mph, VIA Rail's service would be superior in speed to the New York – Washington Amtrak Corridor benchmark where passenger rail garners a 76% market share. VIA Rail does not believe the train frequency difference with that Corridor would have a substantial impact on market share as it reflects the relative size of the two markets (i.e., fewer frequencies would be required in TOM Corridor to serve the market given the lower populations).

In the last ten years, VIA's ridership has remained flat despite deterioration on all three metrics. This was achieved mainly through price discounting. In fact, from 2000 to 2013, average revenue per passenger dropped eight percent from $59 to $54 in constant dollars.



VIA Rail provides Canada with much needed affordable mobility in times of high fuel costs. In fact, in 2008, VIA Rail reached a ten year peak in ridership of 4.6 million travellers, thus confirming VIA Rail's essential role as a public service.

Passenger rail plays an important role as an alternative to road and air in times of natural or man-made emergencies and crises. Trains can move many passengers quickly and capacity can be added without too much difficulty. Also, rail is a relatively robust system and can provide a safe alternative to road and/or air travel in these times of crisis.

The best examples of the importance of rail as a third option are inclement weather events such as snow storms or freezing rain, where rail is much less affected than the other modes of transport. A

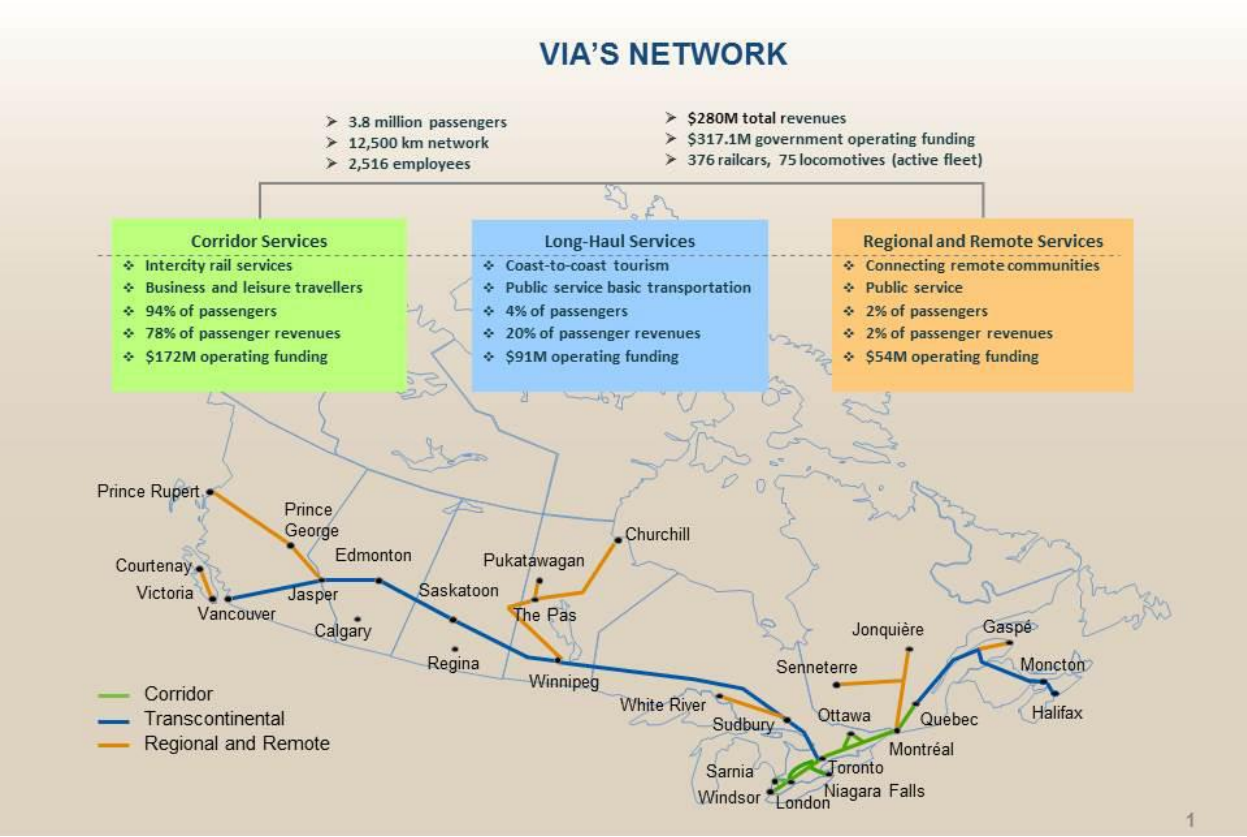
specific example is, following September 11, 2001, where the air system was grounded for several days, VIA Rail and Amtrak played a critical role in filling in some of the lost capacity. In the United States, Amtrak is considered a strategic asset in times of emergencies; war, etc.[15] A robust, reliable passenger rail network provides redundancy in times of national emergencies.

However, Canadian rail service has greatly lagged behind global rail services. In fact, between 2000 and 2012, Canadian rail service decreased by 12% on a passenger-miles-travelled basis vs. a 15 - 24% increase for the United States and Europe, respectively.

VIA Rail currently serves three distinct markets:

- The Quebec City - Windsor corridor including TOM Corridor;
- The long haul market which covers two routes, the 'Canadian' branded service from Toronto to Vancouver and the 'Ocean ' service from Montreal to Halifax; and
- Remote services which cover nine routes in less populated regions of Canada.

[15] FEMA FY 2014 Intercity Passenger Rail (IPR) – Amtrak, Funding



These services receive various levels of subsidy based on VIA Rail's ability to recuperate its costs through ticket sales. In fact, VIA Rail's operating subsidy can be attributed as follows:

2014 Results

Train Service	Total Subsidy $ Million	Subsidy per Passenger	Subsidy per 100 Passenger Miles
Toronto-Ottawa-Montreal (TOM)	$93	$ 44	$ 21
Total Corridor (Quebec - Windsor) incl. TOM	$172	$ 48	$ 27
"Canadian" (Vancouver-Toronto)	$55	$591	$ 50
"Ocean" (Halifax-Montreal)	$36	$ 480	$93
Regional/Remotes	$54	$ 777	$ 304
TOTAL VIA	$317	$83	$39

VIA Rail believes that, with a dedicated passenger infrastructure, through improved service in the TOM Corridor and the rest of the Quebec City-Windsor corridor, its corridor operations could contribute sufficiently to its overall operations to substantially reduce and possibly eliminate the Government of Canada's operating subsidy.

VIA Rail believes that there is substantial potential demand for train service within the TOM Corridor currently being met by the automobile mode. This is leading to substantial congestion on the TOM

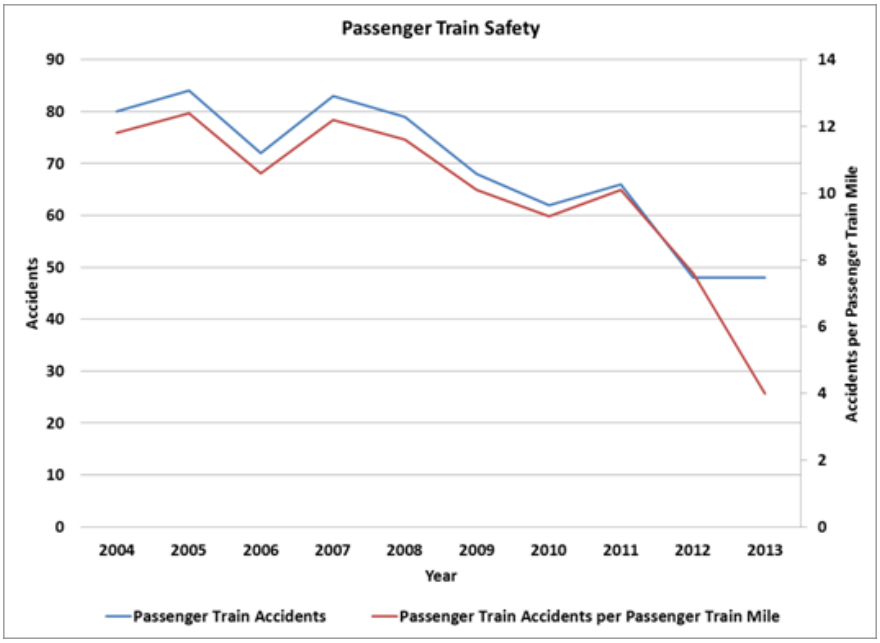
Corridor highways in particular in the approaches to Toronto, Ottawa and Montreal. Since 1970, the car's share in the TOM Corridor has grown from 58% to 82%. Over the same period, the train mode's market share has dropped from 17% to 5%. The primary reasons for the drop are reduced service and reliability measured as deteriorating on-time performance and increases in time to destination.

Growth in commuter rail has demonstrated that, where rail investments improving service reliability have been made, people have given up their cars for train seats. According to Transport Canada figures, commuter rail ridership in Vancouver, Toronto and Montreal more than tripled from 21 million to 69 million between 1994 and 2012[16].

VIA Rail estimates that, using its current equipment at their maximum speeds of 110 mph, with improved trip times and a greater number of trains per day, it could triple its ridership in the Corridor. High speed equipment could increase ridership to five times its current ridership.

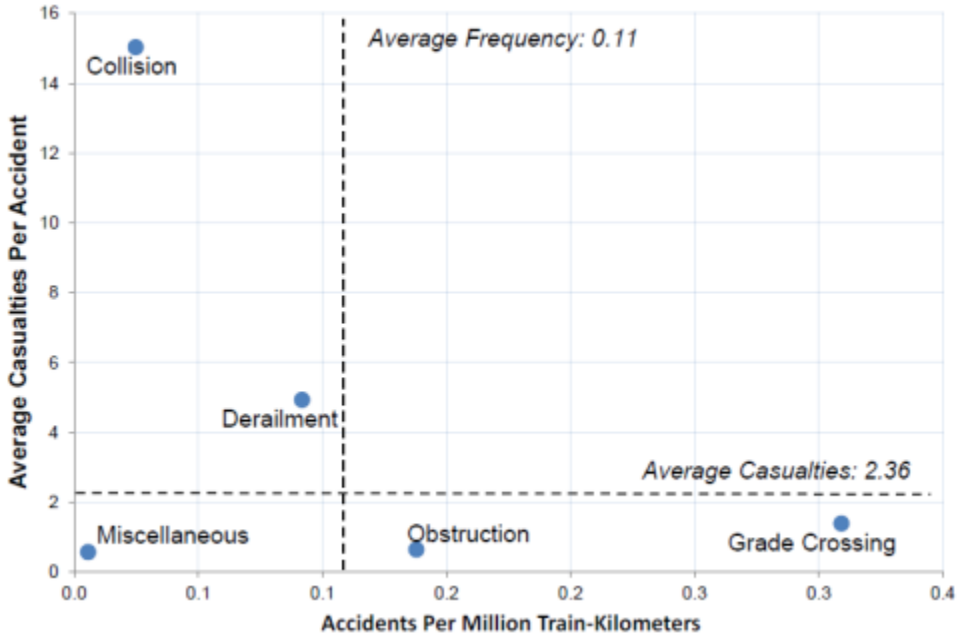
PUBLIC CONSIDERATIONS: SAFETY

Safety and security are on-going top priorities at VIA Rail. VIA continuously works to improve the safety and security of its operations and to inform the public about safety issues. In an audit performed in 2012, VIA's independent auditors, PricewaterhouseCoopers, observed that VIA had a safety culture imbedded throughout the organization. Rail safety is foremost in VIA Rail's mind and culture. The following chart illustrates the trend from safe to safer for the Canadian passenger rail industry.



[16] Transport Canada, Transportation in Canada, Statistical Addendums

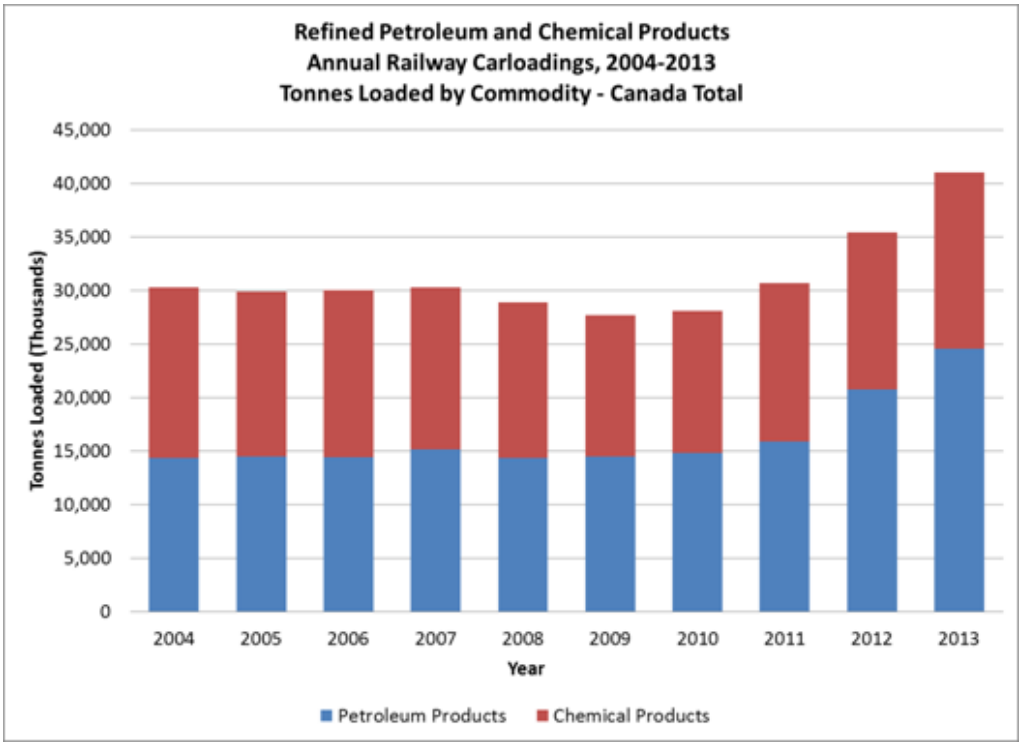
Any mainline collision is of major concern to VIA Rail. Mainline collisions and derailments are the most serious categories of rail accidents in terms of potential risk to the public and financial loss (e.g., when passenger trains are involved or dangerous goods are released from trains that derail while travelling in populated areas)[17]. This concern arises, in particular, in the context of increasing transportation of dangerous goods. The vast majority of fatalities and injuries occur in crossing collisions and trespasser accidents. These account for over 95% of fatalities and injuries. However, on a per accident basis they represent a very low average casualty per accident rate. The following graph illustrates the relationship.



While the probability of a mainline collision is much lower than any other type of rail accident, the potential for high casualty rates places them front of mind in VIA Rail's risk management program. This is particularly true with the increase in the transportation of dangerous goods[18].

[17] Transportation Safety Board of Canada, Statistical Summary Railway Occurrences 2013, p.4

[18] From Transportation in Canada 2013, Statistical Addendum, p A108



The two defining railroad accidents in Canadian history are the Hinton Train Collision of 1986 between a VIA Rail passenger train and a CP freight train and the Lac Megantic rail disaster of 2013. The former accounted for 23 deaths and 71 injuries and the latter for 47 fatalities.

While these types of accidents are rare, an increase in rail traffic, coupled with an increase in the transportation of dangerous goods, increases the potential for a passenger train / dangerous product carrying freight train collision. This is particularly true in TOM Corridor where the vast majority of Canadian rail passengers share tracks with Canada's busiest freight system. There is no question that, in this high density corridor, dedicated passenger tracks would eliminate the potential for this type of collision.

PUBLIC CONSIDERATIONS: SAFETY / TRAIN SPEEDS AND CROSSINGS

New Grade Crossing Regulations that will further enhance safety were published in the Canada Gazette on December 17, 2014. Amongst the key elements of the new Regulations is that road authorities, private authorities and railway companies will be required to maintain sightlines at grade crossings and that no level crossings may be built where trains run at more than 110 mph. A period of 7 years from the effective date of the Regulations coming into force is provided to allow for required standards to be phased-in for existing grade crossings. VIA Rail supports the intent behind these new regulations. However, their application to private crossings without consideration to actual risks and the allocation of costs exclusively to the railway is unfair.

VIA Rail believes that implementing Positive Train Control in a dedicated passenger rail infrastructure would be the most cost efficient way of improving safety for passenger trains. In the meantime, VIA is developing a GPS-based Train Control System that would provide many of the benefits of the Positive Train Control technology being considered in North America by other railroads.

Finally, it should be noted that in 2012, there were 2,104 fatalities and 168,513 injuries in Canadian roadway accidents[19]. Service improvement through the building of dedicated passenger tracks in TOM Corridor would attract significant numbers of travellers to switch from auto to rail for certain trips. This would potentially reduce auto accidents, deaths and injuries on Canadian highways.

PUBLIC CONSIDERATIONS: CLEAN OPERATIONS

VIA Rail estimates that by moving to dedicated track infrastructure it could carry additional passengers equating to 4.3 million cars a year.

Policy actions that would divert passengers from the car to the train and the bus in high circulation Corridors would be beneficial to Canada's environment. If passenger volume increases while the number of trains per day remains stable (i.e., load factor increases), then CO_2 emissions per passenger-kilometre decrease. Further gains could be had by modernizing Canada's rail fleet, in particular through electrification.

Taking congestion in and out of major cities into account, between Toronto and Montreal, every passenger who takes the car is equivalent to two train passengers from a CO_2-Equivalent point of view. Most studies approximately equate train and car passengers and yield numbers such as 0.12 kg and 0.16 eq/pax-km respectively for the two modes.[20] However, the numbers are drastically different when congestion is taken into account. A 2007 study prepared for Transport Canada that did consider congestion provided the following table[21] for TOM Corridor.

[19] Transportation in Canada 2013, Statistical Addendum, p A59

[20] Transport Canada, adapted from Statistics Canada's Quarterly Report on Energy Supply-Demand in Canada, 57-003

[21] Assessment of Environmental Performance and Congestion Relief Benefits of Intercity Passenger Rail Services in Canada, Prepared for Transport Canada, By G.W. English, J. Lawson, T.W. Moynihan, RESEARCH AND TRAFFIC GROUP, March, 2007

City Pair / Mode	GHG		CAC							
	CO_2-Equivalent		HC		CO		NOx		PM	
	(g/pkm)	(kg/trip)	(g/pkm)	(g/trip)	(g/pkm)	(g/trip)	(g/pkm)	(g/trip)	(g/pkm)	(g/trip)
Ottawa-Montreal										
Rail-Coach	123	23	0.06	10.4	0.14	27	2.13	398	0.04	8.3
Air	498	78	0.44	68.1	1.28	199	1.80	282	0.08	13.0
Bus	42	9	0.017	3.5	0.09	19	0.31	62	0.0071	1.4
Auto	171	34	0.55	110.9	9.08	1,817	0.48	97	0.004	0.8
Ottawa-Toronto										
Rail-Coach	84	37	0.04	16.7	0.10	44	1.44	642	0.03	13.5
Air	210	81	0.22	83.3	0.45	174	0.73	282	0.04	13.6
Bus	38	16	0.016	6.5	0.08	35	0.28	115	0.0064	2.7
Auto	171	78	0.55	251.7	9.08	4,123	0.48	219	0.004	1.8
Toronto-Montreal										
Rail-Coach	83	45	0.04	20.0	0.10	52	1.43	769	0.03	16.1
Air	200	106	0.03	17.1	0.23	123	0.91	480	0.03	17.7
Bus	43	24	0.018	9.9	0.10	53	0.32	175	0.0073	4.1
Auto	171	93	0.55	302.2	9.08	4,950	0.48	263	0.004	2.2

Track electrification is another factor that would have a great impact on CO_2-equivalent emissions. Because Ontario and Quebec produce electricity using Thermal Plants and Hydro respectively the benefits of electrification are different for the parts of a trip that are done in each province. It is estimated that electric trains using:

1. hydroelectricity produce 5% of the CO_2-Equivalent emissions of a diesel train;
2. Thermal Plant generated electricity produces 77% of the CO_2-Equivalent emissions of a diesel train[22].

For the below train pairs, given the distance travelled in each province, the emissions would be as follows:

[22] Numbers derived from Ministère des Transports du Québec / Ontario Ministry of Transportation / Transport Canada, Updated Feasibility Study of a High Speed Rail Service in the Quebec City – Windsor Corridor: EcoTrain Study, Deliverable No-09 – Analysis of Environmental and Social Impact

City Pair / Mode	GHG CO2 - Equivalent	
	(g/pkm)	(Kg/Trip)
Ottawa-Montreal		
Rail-Coach Diesel	123	23
Rail-Coach Electric	65	17
Air	498	78
Bus	42	9
Auto	171	34
Ottawa-Toronto		
Rail-Coach Diesel	84	37
Rail-Coach Electric	65	29
Air	210	81
Bus	38	16
Auto	171	78
Toronto-Montreal		
Rail-Coach Diesel	83	45
Rail-Coach Electric	62	34
Air	200	106
Bus	43	24
Auto	171	93

VIA Rail estimates that, using 110 mph trains in TOM Corridor, its annual ridership would increase from 2.1 million to 6.9 million. Given the above figures, the 4.8 million ridership increase would be the equivalent of taking 4.3 million cars, in the case of a diesel train, and 5.5 million cars, in the case of an electric train, off the road every year.

USE OF INNOVATIVE FINANCING STRATEGIES

Promoting passenger dedicated tracks requires that we address the financing of such large scale infrastructures. We are at a particularly attractive time for infrastructure financing. The combination of post 2009 investment conservatism, low interest rates and the retirement needs of the baby boomers are causing investors to pay particular attention to safe investments with a somewhat higher yield. Canada's robust economy and its political stability make it an ideal location for long-term infrastructure investment. The size of such a project is estimated as low as $3 Billion for dedicated passenger track between Toronto-Ottawa-Montreal operating at 110 mph. It would be as high as $20 Billion (2011 Quebec, Ontario, Federal EcoTrain Study) for a 200 mph fully electric dedicated high speed rail line between Quebec City and Windsor. Infrastructure investors prefer large-scale projects. Public- Private Partnerships (P3s) are an effective, long-term, performance-based approach to procuring public infrastructure and are the perfect type of investment vehicle at this time. As stated in the Commission's discussion paper, P3s have been successful at all levels of government for delivering major infrastructure projects.

Several recent transactions confirm the market's appetite for infrastructure investments. For example:

1. The Caisse de dépôt et placement du Québec (« CDPQ ») concluded an agreement with the Québec government for the execution of major infrastructure projects. Under the terms of the agreement, the government will identify projects that may present an interest for la Caisse. Assuming this interest is confirmed, la Caisse will become responsible for project planning, financing, development and operation. The government retains responsibility for setting broad project parameters and approving solutions presented by la Caisse on the basis of consultations with the various stakeholders.

2. As well, Patina Rail LLP, a consortium comprising CDPQ and Hermes Infrastructure has announced that they have agreed to acquire a 40% shareholding in Eurostar International Limited ("Eurostar"), a provider of high speed passenger train services, primarily between London - Paris and London – Brussels, running through the Channel Tunnel, from the UK Government. CDPQ and Hermes Infrastructure intend to own 30% and 10% of Eurostar respectively. Eurostar's other shareholders will comprise Société Nationale des Chemins de Fer Français ("SNCF") (55%) and Société Nationale des Chemins de Fer Belges ("SNCB") (5%).

However, as time passes and we get further away from 2008, the desires to return to more historically normal (i.e. higher) returns will likely push investors up the risk curve. At that time infrastructure financing will either become more expensive or unavailable all together.

Government support may be limited to payment guarantees to achieve dedicated tracks in the TOM Corridor.

LEGISLATIVE FRAMEWORK

In its review of Canada's National Transportation policy, we would ask the Review Panel to recommend to the Government of Canada enabling legislation for VIA Rail. We would also welcome discussing amendments to the CTA that would improve the efficiency of public passenger rail service providers.

VIA RAIL CANADA'S ENABLING LEGISLATION

VIA Rail was created by an Order in Council in 1977 as a parent Crown Corporation and was incorporated under the Canada Business Corporations Act (R.S.C., 1985, c. C-44). As a parent Crown Corporation, VIA Rail is subject to the Financial Administration Act (R.S., 1985, c.F-11) which materially curtails the powers conferred to VIA by its statutes of incorporation, such as the power to borrow, lease, acquire or sell assets or enter into joint ventures. VIA Rail is not governed by enabling legislation stating clearly its mandate or legal framework, like most other Crown corporations, and therefore no specific legislative framework applies to the governance of the corporation.

Furthermore, as a non-agent Crown corporation, VIA cannot benefit from the Government of Canada's credit worthiness or guarantee, even if it had the power to borrow.

VIA Rail believes that enabling legislation is the proper vehicle to adjust the corporation's agency status. Enabling legislation would clarify VIA Rail's mandate and articulate the Government of Canada's objective with respect to the role of passenger rail service in the country's economic and national transportation policy. Such enabling legislation will reinforce powers available to VIA, including contracting and financing a dedicated passenger rail system within the TOM Corridor, making such a rail system an attractive investment opportunity for private sector investment. The construction of a dedicated passenger rail infrastructure would lead to safer passenger rail operations, improved on-time performance and trip times and increased ridership, therefore contributing to Canada's economic growth while alleviating the congestion of air, highway and freight railway networks. We look forward to discussing the various corporate powers that would be included to arm VIA Rail with the operational flexibility to carry out its optimal strategy.

CTA Recourse Related to Access Right for Public Passenger Service Providers

Passenger rail requirements for access are different from those of a freight shipper seeking running rights to the nearest interchange. For VIA Rail, access to the right-of-way is essential in order to maintain the integrity of the national passenger network.

In 2002, at the time of the previous Canada Transportation Act Review, a passenger rail service such as VIA Rail could apply to the Canadian Transportation Agency to gain running rights to railway company infrastructure based on a "public interest" test under section 138 of the Act. Compensation for such access was based on a "fair and reasonable" commercial test pursuant to section 112. Finally, under section 161, as a passenger rail service, VIA also had a right to Final Offer Arbitration (FOA) under Part IV of the Act to facilitate the resolution of rate and service disputes that may have arisen during commercial negotiations.

Together these sections in the Act addressed:

- the substantive right to access;
- the procedural mechanism to determine access-related issues, including compensation; and
- the procedure to resolve commercially negotiated rate and service related disputes.

Amendments to the Act

Subsequent amendments consolidated the statutory scheme related to access rights for public passenger service providers—including VIA Rail—and the procedural recourse in respect of those rights and commercially negotiated matters more generally. The amendments promised a more tailored approach that recognized the imbalance in bargaining power between the parties and the

need to ensure that the public interest in giving effect to these rights was not hampered by procedural challenges or dominated by the interests of non-public, non-passenger rail companies.

The new passenger rail access provisions were introduced in Bill C-11, An Act to amend the Canada Transportation Act and the Railway Safety Act and to make consequential amendments to other Acts, tabled in 2006. In introducing Bill C-11, the Honorable Lawrence Cannon, the Minister of Transport, Infrastructure and Communities at the time, stated:

> *"The proposed amendments in Bill C-11 will improve the framework for passenger rail service in Canada by allowing [passenger] rail operators and VIA Rail Canada to seek adjudication from the agency if they are unable to reach agreement with the railways on access to track and other services when new agreements are negotiated or existing agreements renegotiated[23]."*

With the passage of Bill C-11 a new subsection 152.1(1) of the Act came into force. It reads as follows:

> ***152.1(1)*** *Whenever a public passenger service provider and a railway company are unable to agree in respect of any matter raised in the context of the negotiation of any agreement concerning the use of the railway company's railway, land, equipment, facilities or services by the public passenger service provider or concerning the conditions, or the amount to be paid, for that use, the public passenger service provider may, after reasonable efforts to resolve the matter have been made, apply to the Agency to decide the matter.*

A "public passenger service provider" is defined in s. 87 of the Act as "VIA Rail Canada Inc., a passenger rail service provider designated by the Minister or an urban transit authority". A new section 152.2 enumerates detailed factors to determine compensation related issues, while section 152.3 provides that Agency decisions are binding for five years.

These new statutory provisions were welcomed by VIA Rail since they promised a new, robust dispute resolution process.

Testing the New Scheme – Agency Decision No. 195-R-2013

It was not until May 1, 2012 that these new statutory access provisions were tested when VIA Rail applied to the Agency for an order approving three additional round trips on the railway infrastructure of CP. The parties had begun negotiating in September 2011, approximately eight months prior to VIA submitting its application to the Agency.

The provision of an opportunity for a passenger rail company to gain greater access did not prove to be as straightforward as anticipated. A brief review of the regulatory process engaged by section 152.1 will be helpful.

VIA's May 1, 2012 application was preceded by negotiations that commenced in September, 2011, a necessary pre-condition for VIA involving section 152.1. Then on July 17, 2012, CP filed a motion

[23] House of Commons, Tuesday Sept 19, 2006 at 12:20 (Online Pinpoint).

requesting the Agency to dismiss VIA's application for (a) failing to make a prima facie case under section 152.1 and (b) failing to meet what, in its view, were the three statutory requirements under subsection 152.1(1). In August, CP acknowledged that VIA had made a prima facie case, but CP only abandoned that ground of the motion on January 8, 2013. Notably, this is the time by which VIA had indicated it needed the three round trips in operation.

CP nevertheless continued in respect of the second ground of its motion, and in deciding the motion, the Agency held that VIA must satisfy two pre-conditions before the Agency can rule on the "merits" of an application under section 152.1 for the resolution of a dispute:

- no existing agreement is related to the right of usage matter submitted to the Agency for decision; and
- the parties are unable to agree after reasonable efforts to resolve the matter[24].

Though CP's motion was not successful, it did manage to create additional hurdles that had to be overcome before VIA could avail itself of the dispute resolution provisions that were specifically enacted with the promise of addressing the unequal bargaining power between a passenger and freight rail company respectively.

Regarding pre-condition (a), the Agency accepted CP's submissions that subsection 152.1(1) only applies where the parties are negotiating new agreements or renegotiating expired or terminated agreements. Accordingly, the Agency determined that it only has jurisdiction if pre-condition (a) is satisfied as a preliminary matter.

Impact on VIA Rail

Read together with pre-condition (b), of particular concern to VIA is that after failing to reach a commercially-negotiated agreement, it must then establish that no pre-existing agreement addresses the very matter that is now put before the Agency to decide. In short, it must first establish the absence of an agreement in respect of a given matter and then, further, that reasonable efforts to negotiate that matter have been made.

While VIA was successful in this precedent-setting access decision, it should be noted that as a consequence of the jurisdictional and procedural hurdles raised by CP, recourse to the Agency took over a year, beginning in May 1, 2012 to the Decision date of May 17, 2013. When combined with the efforts to negotiate commercially, the matter took some 20 months to resolve.

These observations are not meant as a criticism of the Agency but rather as an illustration that section 152.1 (and related sections) must be amended in order to provide a more streamlined and efficient statutory and regulatory process to resolve disputes over access.

[24] Decision No. 195-R-2013, para. 29.

Pre-conditional (a) is an Impediment Market Forces

Throughout the discussions at the time of Bill C-11 in 2006 and in filings with the Agency during the 20 month CP case, VIA has recognized the efficiency and market-oriented preference for commercial negotiations to precede recourse to the Agency. However, based on experience gained, VIA believes that such commercial negotiations can be inefficient when the parties disagree on the alternative to a negotiated agreement, including whether or not recourse to the Agency is available.

VIA does not believe that the policy underlying subsection 152.1 should allow a railway company to unilaterally frustrate or delay VIA's recourse to the Agency. Accordingly, VIA recommends that consideration be given to amending section 152.1 in order to ensure that obstacles and delaying tactics will not be available to the railway company to which the passenger rail company seeks access. Various statutory amending mechanisms can be considered including minimum provisions to establish a prima facie case by a passenger rail company and reverse onus requirements relative to a freight railway company. There will be more options available. The key will be to get recommendations from the present statutory review process. We look forward to discussing appropriate amendments to sections 152.1, 152.2, 153.3 and any other related sections in order to truly rebalance the bargaining power between public passenger service providers and railway companies in an efficient and effective manner.

Other Recommendations for Amendments to the CTA

In order to address the inherent imbalance in bargaining power between freight railway infrastructure owners and passenger rail service providers, to improve safety and to increase operational efficiency of passenger rail, we would ask the Review Panel to recommend the following amendments to the CTA:

With regards to relations with the owner of rail infrastructure:

- CTA jurisdiction to apply at all times even with dispute resolution provisions in train service agreements;
- Clearer provisions for access priority and charges, and for public policy when making public investment in freight rail infrastructure;
- Obligation of the owner of rail infrastructure to ensure an adequate quality of maintenance of rail infrastructure for speed of passenger trains;

With regards to safety:

- Right to adopt random alcohol and drug testing policy for safety-sensitive positions such as locomotive engineers;
- Right to use data from Locomotive Inward Facing Video and/or In-Cab Voice Recording (LVVR) for the purpose relating to or in connection with analysis or investigation of safe operating practices;

With regards to operation:

- Clearer provisions with regards to net salvage value when disposing of rail infrastructure;
- Clearer provisions with regards to sale and closure of passenger stations;

With regards to liability of passenger rail service providers:

- Exemption or limitation of third-party liability when passenger rail service provider is not in breach of any rule or regulation.

It is to be noted that certain of the amendments to the CTA discussed above could also be reflected in VIA Rail's enabling legislation. We look forward to discussing the above-mentioned provisions more thoroughly with you, as we believe they will contribute to VIA's performance and contribute to the development of passenger rail service in Canada.

APPENDIX 1

Current Status of VIA Rail Canada

OVERVIEW

- VIA Rail Canada ("VIA") operates the national passenger rail service on behalf of the Government of Canada, providing inter-city service and regional and essential remote rail transportation to Canadians and foreign visitors across the country in a safe, efficient, reliable, and environmentally sustainable manner.

- VIA is an independent Crown Corporation incorporated on January 12, 1977 under the Canada Business Corporations Act, and listed in Part I of Schedule III to the Financial Administration Act. VIA is appropriation dependent, is not an Agent of Her Majesty, is without a legislated mandate, and is not tax exempt.

- VIA operates up to over 500 trains weekly on a 12,500 kilometre rail network, connecting over 450 communities across the country.

- In 2013, VIA carried 3.9 million passengers or approximately 832 million passenger-miles and operated 6.2 million train miles. The fleet includes 376 passenger cars and 75 locomotives. In addition to 96 stations, 15 shelters and 318 sign-post and platform stops, VIA operates four maintenance facilities in Montreal, Toronto, Winnipeg and Vancouver, and two call centers in Montreal and Moncton.

- VIA employs approximately 2,500 people, 80% of whom are unionized employees, and 7% of whom are working on capital projects. While VIA owns 159 miles of track (or 2% of the total network on which is operates), most of the infrastructure used by the passenger services is owned and managed by the freight railways, including CN, CP, four short-line operators and Metrolinx (GO Transit).

- VIA has not acquired new rolling stock since the beginning of the last decade. The entire fleet is generally quite old. Although a portion has been, and is being refurbished (e.g., the overhaul of 53 F-40 locomotives was completed in 2012, the refurbishment of the LRC Corridor cars is expected to be completed by 2017, and one Hep1 car has been renovated into a new Prestige Sleeper class car, with another 11 on the way) the refurbishment will only extend their life by a decade or two.

- The average age of VIA's rolling stock is over 40 years old (over 23 years for the locomotives and 43 years for the cars). To date, they have accumulated an estimated total of 2.5 billion miles, or about 5 million miles per unit.

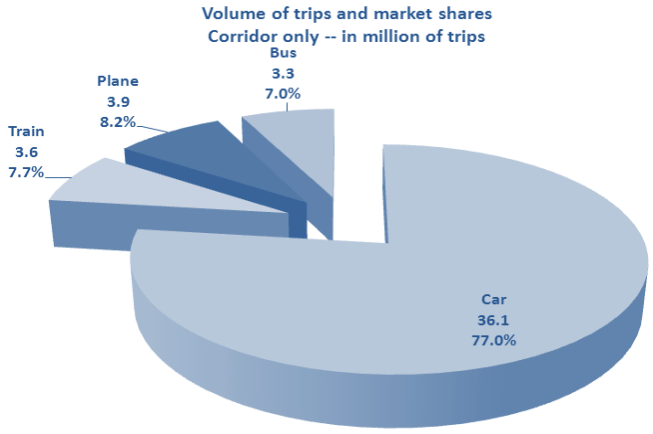
- VIA's network is divided into three distinct types of services: Corridor, Long-distance and Regional and Remote Mandatory.

Corridor

- In the densely populated Corridor between Quebec City and Windsor, VIA provides convenient downtown-to-downtown travel between major urban and suburban centres and smaller communities. This market is busy year-round and the main competitor is primarily the automobile, followed by airlines and buses. The service includes growing extended commuter services linking many communities to the three large metropolitan areas of Toronto, Ottawa and Montreal.

- VIA's revenue has seen 4% passenger revenue growth to $203 million in the last twelve months ended November 2014 compared to $194 million for the year ended in December 2013. This is primarily due to better fare management. Prior to this, and since the 2009 recession, VIA's revenue had essentially remained flat.

- The following chart provides the volume of trips and market shares by mode in the Corridor:



Long-Haul

- VIA Rail operates two long-distance (long-haul), full service overnight trains: the *Canadian*, between Toronto and Vancouver, and the *Ocean*, between Montreal and Halifax, both of which operate on CN lines. These trains carry mostly Canadians but also attract travellers from around the world and support Canada's tourism industry.

- These long-haul trains have experienced long term flat or declining ridership and revenue. This combined with high and fixed operating costs has resulted in an increase in the operating deficit. This has affected the *Ocean* significantly more than the *Canadian*.

- In 2014, VIA Rail's On-Time-Performance (OTP) continued to deteriorate due to track congestion. In December 2008, VIA added 12 hours and one more night to the *Canadian*'s schedule due to rapidly deteriorating OTP caused by operating on CN's congested railway network. While the 2009 recession had brought some congestion relief, the economic upturn has brought congestion to an all-time high. More and longer trains have had a substantial impact on OTP, negatively affecting customer service and market appeal, particularly on the *Canadian* between Toronto and Vancouver. This has been especially damaging to VIA's

western Canada inter-city services as it is unable to deliver a reliable service for Canadians travelling between western locations.

Remote and Regional

- Remote and regional services provide essential transportation needs to communities where alternative and affordable transportation is limited or unavailable. They serve regions with very low population densities with declining populations and economic activity.

- These train services have a very low cost recovery ratio, given the high operating costs to provide the service and the low level of ridership and revenue.

- Four of these services operate on CN or CP infrastructure. The other four operate on short line railways that do not have the financial capacity to adequately invest in their railway infrastructure to allow VIA to maintain adequate passenger train speeds and reliability, while providing safe operations. Currently two of these services (Gaspé and Vancouver Island) have been suspended due to the poor state of the infrastructure.

CONSTRAINTS

- VIA is a non-Agent, appropriation-dependent, Crown corporation, and has little flexibility to institute significant changes in the way it operates. VIA has no enabling legislation that would provide an explicit and clear mandate, or a legal framework clearly defining its governance powers and responsibilities. VIA and only two other Crown corporations (Marine Atlantic Inc. in Nfld, and Ridley Terminals Inc. in B.C.) are in this position, out of a group of several dozen federal Crown corporations.

- Designated as a parent Crown corporation in Schedule III, Part I of the Financial Administration Act, VIA has limited operating autonomy and limited borrowing authority (Sec. 127 (3) of the Act states that: *No Crown corporation shall enter into any particular transaction to borrow money without the approval of the Minister of Finance with respect to the time and the terms and conditions of the transaction*).

- VIA reports to the Minister of Transport. The Board of Directors and the President and CEO are appointed by Cabinet.

- VIA is dependent on Parliamentary appropriations to cover operating, pension and capital requirements. The annual Corporate Plan is the means by which VIA receives approval for capital, pensions and operations.

- 98% of the network on which VIA's trains operate is shared with, and owned by freight railways, who have different objectives, priorities and interests. As a consequence, VIA cannot add frequencies to meet demand in high-ridership areas such as the Quebec City-Windsor Corridor.

- The Government of Canada prescribes the level of service on VIA's long haul, remote, and regional routes, and even within the Corridor; and VIA has little to no flexibility to change these to better match supply and demand.

- VIA's relatively long trip times, limited train schedules and poor reliability, even in the Corridor, does not generate the ridership and revenue it needs to become financially self-sustaining.

- The annual capital investment of $60M is just sufficient to maintain VIA's asset base in a state of good repair, but insufficient to significantly improve the corporation's financial viability. Rail is a capital intensive industry that does well where it provides a high level of service in high density Corridors. This has been proven time and time again, in numerous countries around the world, which have Corridors similar in population, density, distances and income to VIA's Quebec City-Windsor, and especially Toronto-Ottawa-Montreal Corridors.

- Despite the Corporation's best efforts, annual operating deficits will continue to face upward pressure since expenses are twice the size of revenues. In the long term, in order to improve reliability and the level of service required to achieve financial self-sufficiency as well as reduce dependency on Government appropriations, VIA has to invest in its own infrastructure and acquire its own tracks so that it can reliably operate more trains with shorter trip times.

STRATEGIC DIRECTION

Objectives

VIA's new President and Chief Executive Officer was appointed on May 9, 2014. Shortly after his appointment, he immediately outlined some key elements that will underpin VIA's current and planned objectives. These are:

- Maintain a culture where safety is everyone's primary concern;

- Be a transportation service that, in the Corridor, is top-of-mind for individual and family travellers, as an alternative to their cars, and that provides a unique way for domestic and foreign tourists to experience Canada;

- Provide a public service that is managed like a commercial enterprise;

- Provide quality service that customers recognize at its true value;

- Use public funding strictly to cover the cost of providing mandated services to remote areas, and for building and maintaining its infrastructure;

- Promote creativity, innovation, and teamwork;

- Be a corporation where open and candid discussions are encouraged, where everyone acts with respect and rigor, and that works in the best interest of the customer;

- Be a corporation where everyone shares the same objectives; and

- Be a workplace where each employee feels appreciated, recognized and rewarded for being of service to passengers, to each other, and to the communities VIA serves.

Context

- The Quebec City-Windsor Corridor (particularly the Toronto-Ottawa-Montreal segment) is the only market in which VIA operates that has the potential to break even, financially.

- VIA believes the long-haul market currently served by the Canadian (Toronto-Vancouver) and the Ocean (Montreal-Halifax) can potentially be sound subject to a major product overhaul. VIA is in the process of studying potential changes to make the product more attractive.

- The remote market is a true public service that has no potential for stand-alone financial viability. Their losses will continue to grow despite VIA's best efforts to grow revenues and control costs.

Principles

VIA is facing intense competition from the automobile in all of its key markets. This will be increasingly true with oil prices going down; therefore, VIA intends to:

- Focus all its resources and energy to enhance value to customers and to maximize revenues, while continuing to serve as many communities in Canada as is viable;

- Continue to be as efficient as possible and responsible with taxpayers' funds;

- Mitigate, to the extent possible within its mandate, the increase in the operating deficit by matching train service levels to markets where demand justifies;

- Continue to invest, when funding becomes available, in order to:
    - enhance safety;
    - improve train reliability and on-time performance;
    - Introduce more trains per day and significantly improve trip times to grow revenue, thereby reducing dependence on Government of Canada funding.

- Focus its investment strategy on acquiring control of its rail infrastructure and acquiring new rolling stock while minimizing or eliminating investment in third party infrastructure or rolling stock scheduled for replacement.

STRATEGIC FOCUS

- To remain competitive, VIA has to fully understand a continuously changing environment and react with new strategies or corrective measures accordingly. This includes the development

and implementation of products, market and pricing strategies, effective inventory management, and excellent communication.

Competitive Strategy

- Since the automobile continues to be the dominant transportation mode in short to medium distance markets, VIA will continue to target car users as the main source of potential new passengers. VIA will focus on getting frequent drivers to try taking the train and leaving their cars at home, and it will also focus on current train users to encourage repeat business. This strategy will help traffic growth and revenue maximization.

- In addition, within the framework of improved mobility, VIA Rail aims to significantly expand its role in multi-modal service by leveraging inter-modal service agreements with other transportation providers, both domestic and foreign. An example is the integration of schedule and ticketing of the upcoming Union Pearson Express service, allowing passengers a seamless experience.

Consumer Strategy

- VIA will focus on consumers in the various markets based on the purpose of their trip: e.g., business versus non-business, and will primarily target adults followed by youth, to encourage the switch from automobile usage to trains.

- VIA will continue to focus on displacing automobile use with a value proposition relevant to car users. Through enhanced inventory and pricing strategies, VIA will encourage car users to leave their automobiles at their home locations, and by so doing, avoid the growing congestion, high cost of urban travel, environmental impacts and the safety concerns (especially in winter) of car use.

- This focus is essential to finding opportunities for expansion and growth based on the customers' lifestyles and behaviors, and their likes and dislikes. This will permit the development of initiatives aimed at enhancing value to customers, ultimately leading to passenger volume and revenue growth.

Pricing and Inventory Strategy

- Since the automobile accounts for the majority of trips made in the Corridor, VIA will stimulate volume by encouraging train travel among car users.

Communication Strategy

- Effective communication is essential to converting drivers into train riders. VIA will invest in improvement of its communications in order to make it more effective by targeting key markets, both existing and new.

- VIA will leverage all marketing channels, including a growing use of social media, and ensure a year-round media presence in the Corridor.

Revenue Management

- With the implementation of the enhanced revenue management system, VIA is now much more agile with capacity adjustments, and is better positioned to appeal to price sensitive car users, while progressively capturing additional value where possible.

VISION 2020: KEY STRATEGIES

The corporation has identified several specific strategies that it will roll out in the short and medium term:

	Strategy/Initiative	**Description**
Customer Engagement	Door-to-door fulfillment	Implementation of a seamless door-to-door travel experience, including trip planning, booking, and payment.
	Cycling optimization	Generation of more available seat capacity and allocation within the Corridor by finding more efficient ways to cycle trains and doing this within existing travel time and frequency parameters.
	Reduction of congestion into and out of the major urban centres of Toronto, Ottawa and Montreal. More reliable, safer and more frequent passenger rail service	Increase the mileage of VIA-owned and operated rail infrastructure by acquiring existing tracks or by acquiring railway rights-of-way or land on which to build tracks, linking the major urban centers of Toronto, Ottawa and Montreal. Complete a detailed feasibility study and business case for the establishment of a dedicated inter-city

	Strategy/Initiative	Description
		passenger rail network integrating the regional networks of Toronto, Ottawa, and Montreal.
	Fleet renewal plan	Development of a fleet renewal plan for the existing network and service levels and for potentially increased service levels on dedicated passenger track in the Toronto-Ottawa-Montréal Corridor.
	Scheduling to better meet market needs in the Corridor	Identification and elimination of gaps between current train schedules versus ideal train schedules to better meet market demand. Perform sensitivity analysis reflecting the feasibility of changes and expected improvements.
Employee Engagement	Bring your own device	Facilitate collaboration and connectivity of all employees by allowing the use of their own device / smartphone to access work-related applications and to ease and simplify their work at VIA.
	Employee information network	Expansion of the use of audio/video media to better communicate with employees across the network in order to improve employee understanding, buy-in and engagement.
	Career paths and VIA leadership school	Design and implementation of a fast-track development program, including a review of the Educational Assistance Program, and promoting and rewarding lateral moves throughout the organization.
	Pay-for-performance	Development of an incentive program for unionized employees, and improvement of the rewards system for top performers.
	Corporate project management office	Creation of a corporate Project Management Office (PMO) to increase timely and positive outcomes of projects and initiatives, both capital and operating, and encourage cross-functional collaboration.

	Strategy/Initiative	Description
Shareholder and Stakeholder Engagement	Implementation of a new financial model	Establishment of a direct line of sight to financial performance and accountability by establishing profit centres and cost centres, and integration of the train profitability model into the monthly financial reporting.
	Modify key performance indicators (KPIs)	Implementation of a balanced scorecard approach to ensure alignment between corporate, department and individual goals, using the appropriate KPIs.
	Outreach to provinces and municipalities	Implementation of regular dialogue with input of provincial and municipal authorities in the design, development and funding of train services.
	Montreal Central Station track infrastructure ownership and control	Pursue ownership, jointly with Agence métropolitaine de transport (AMT), or solely, the operating infrastructure and track in and around Central Station.
	Enabling legislation and partial Agent status	Pursue a legislative framework and partial Agent status that provides powers and authorities to facilitate private sector partnerships and financing strategies.

APPENDIX 2

Comparison of North American, UK, Australian Passenger Rail Operators

Extracts from the 2010 CPCS Benchmarking Report to Transport Canada:

Comparison of VIA Rail Key Performance Indicators to International Inter-city Passenger Rail Service Providers
Final Report
Prepared for: Transport Canada
Prepared by: CPCS Transcom Limited

Confidential
January 8, 2010

EXECUTIVE SUMMARY

Background

As part of its ongoing review of Canada's policy objectives vis-à-vis the national transportation system, Transport Canada commissioned this study entitled, "Comparison of VIA Rail Key Performance Indicators (KPIs) to International Inter-city Passenger Rail Service Providers".

The overall aim of the assignment was to provide a basis for comparing "performance" of VIA Rail (VIA) with comparable rail passenger operations in other countries, taking into account the influence of different governance models and operating environments, and drawing out related lessons learned regarding VIA Rail's performance and operations.

The objectives of the study were three-fold:

1. To identify and provide credible justification for performance differences and their drivers (operational, financial, environmental, safety, government funding, governance) between each of the three VIA Rail service categories (corridor, long-haul, remote) and suitably comparable inter-city passenger rail operators;

2. To identify and provide justification for the reasons for differences in service and operating performance, noting in particular the effect of differences in operating environments, governance models, and market structures; and,

3. To evaluate the influence of government policy levers, including different "governance" models, on the level of performance of rail passenger service providers, and to draw out the relevant lessons with respect to comparison to VIA's own performance.

Approach to Identification of Comparable Railways

The study used an objective three-screen process to identify railways which offered services comparable to those of VIA Rail's. The first screen identified passenger railways in countries with reasonably comparable country-specific operating environments to that of Canada (socioeconomic situation, geographic size, existence of passenger rail). The second screen then selected the railways with reasonably comparable operating characteristics for the passenger rail lines to one or more VIA Rail service categories. The third screen limited the list to the railways where data was available for KPI performance comparisons to VIA Rail, at a route level or company level. In total, the data from 12 companies was analysed in the study and compared to VIA Rail in one or more areas of performance. With the data available, the report focused primarily on comparing VIA Rail's performance to passenger operators in the United States (US), the United Kingdom (UK), and Australia.

Summary Observations from the Study

The first observation of this report is that the particular balance of services needed in Canada has meant that VIA is a distinct entity with a nearly unique combination of extremely long haul, shorter but higher density "corridor", and "mandated" rural services.

- Amtrak in the US is probably the closest comparator because of its long-haul trains; but Amtrak's North-East US Corridor operates at a higher service intensity than VIA's corridors and its short-haul trains serve quite different needs than VIA's rural services.

- UK, indeed EU, rail passenger services operate at much higher intensities, but much shorter trip lengths.

- Australia has some long-haul trains that resemble VIA, along with state-owned passenger trains that resemble some of the VIA and Amtrak short haul services.

Our benchmarking analysis identifies a number of areas where VIA might improve, but given the demands placed on it, there is no indication in the numbers that VIA can be radically improved, given its current service patterns and organizational structure.

For instance, VIA stands out from most other inter-city passenger rail operators for having poorer on-time performance, in spite of having lower on-time performance standards. VIA also stands out as paying among the highest track access charges. Another notable example is VIA's relative inability to grow passenger volume on most of its routes.

Analysis of the more qualitative policy and structural issues supports the argument that there may be innovations, based on international experience, that could deliver better rail passenger service for Canada while, at the same time, improving VIA's understanding of its mission and its ability to deliver against that mission. The summary conclusion is that changes relating to infrastructure separation and the role of the private sector that are well proven elsewhere could be of benefit to Canada.

In one sense, infrastructure separation is nothing new. After all, VIA, and Amtrak in the US, have always been tenants on the infrastructure of the private freight railroads. Infrastructure separation in the EU and in Australia carries the idea one step further and separates infrastructure from all operators. More important, in the EU and Australia, all operators are ensured neutral access and agreed priority and all

operators pay access charges based on public tariffs that all understand. Amtrak has by law priority of access and pays incremental cost-based access charges. VIA has neither priority nor a clear basis for access charging.

The experience with private sector passenger service provision has been generally positive, albeit mixed. In some cases, touristic long-haul services have been privatized with reasonable success (Australia). There has been a great deal of experience with franchising of passenger services in the UK, much of which has been successful, though the learning curve has been long and, at times, painful.

The most contentious issue has been allocation of demand risk between operator and government. The resolution has been gradual evolution into a spectrum of different franchise agreements where revenue risk is transferred to private operators for commercial services whereas government retains more of the revenue risk for socially-needed services. Other EU countries, notably Germany and Sweden, have opened up their systems for franchise competition for local and regional services with encouraging results. Though not covered in this report, all the major freight railways in Latin American countries have been concessioned, as have the suburban passenger services and Metros in Buenos Aires and Rio de Janeiro.

Paradoxically, private operation of passenger services in the US has thus far been confined to a few suburban areas, primarily because of labour union opposition. In fact, again because of labour opposition, Amtrak has been highly restricted in its ability to outsource activities such as maintenance of track or rolling stock. There are opportunities for private involvement in Canadian rail passenger service, but they will, of course, be dependent on government policies on the appropriate role of the private sector.

A final summary factor is decentralization. Australia is highly decentralized, and state Governments play a significant role in planning and funding passenger rail service. UK, and EU, governments allow local authorities to play a significant role in deciding what services are needed at the local level and provide local authorities with at least a share of funding to use at local discretion. States and local authorities have long had a role in planning some of the Amtrak local services (and the absence of local commitment has been a good basis to reject political demands for service).

Summary Conclusions

VIA's performance is hindered by the lack of a clear legal foundation and a set of established policy objectives. The result is that VIA lacks the continuity of policy and stability of funding that the UK, most EU railways and some Australian railways have. **VIA would benefit from a clear legal foundation and a stable statement of its roles and objectives.**

Governments in most countries have emphasized a definition of the role of the railway in specific markets and then adapting railway structure appropriately. UK railways serve three markets: commuters; long-haul inter-city services, and regional services. UK franchises are designed accordingly, with commuter and regional services tending toward cost-minimizing management, while the long-haul franchises tend toward commercial management. Australian passenger services serve commuters (some franchised), some higher volume inter-city services (public), regional/rural services (public) and long-haul "tourist" services (privatized). Amtrak operates long-haul, short-haul and Northeast Corridor services, but does not currently manage along these lines of business. VIA has classified its trains as Long-Haul, Corridor and Mandatory (low density, rural). **VIA's performance**

could be improved by development of a Government policy that distinguishes among the markets that VIA serves and provides a clear identification of and balance among the commercial and social objectives that each market has. This could be particularly valuable in focusing efforts on VIA's Corridors and on evaluating and justifying the Regional and Remote services.

Canada is unusual in having almost complete centralization of rail passenger policy and funding. Regional/state and local authorities play a significant role in planning and funding rail passenger services in the US, UK, EU and Australia, and the local role has significant benefits in determining what service is actually needed. Many of VIA's services are essentially local or intra-provincial. **VIA's local services (and Transport Canada's planning) might be more effectively focused if the provinces had a greater role in planning and funding of VIA's services, even if there is a federal share in the provincial funding.**

Of all the railways studied, VIA appears to have the least reliable access to its tracks and some of the most costly access charges. All EU railway operators have neutral access to tracks using access charges that are formulated under clear policy guidelines and that are required to be public. Australia's national infrastructure operator provides neutral access to passenger companies, as do the various state rail agencies. Amtrak, by law, enjoys priority over freight trains, and pays variable cost for access. VIA appears to have only limited access rights and there appears to be no clear basis on which the freight railway access charges are negotiated: VIA's bargaining power is low and its access charges relatively high. **VIA's future costs and service quality are critically dependent on a more explicit and enforceable set of rules for access priority and charges, and on more explicit public policy for the objectives of public investment in freight rail infrastructure.**

The US and Canada are becoming the only major countries where the private sector remains largely excluded from operating inter-city passenger trains. Though the results of private operations have been mixed, and subject to debate, the indications are that private operation under the right terms brings greater efficiency and better market focus. **There could be a productive role for private operation of some of VIA's trains if Government policy made this a priority.**

APPENDIX 3

Comparison to/Synergy with Commuter Rail Services in Toronto and Montreal

GO Transit (Metrolinx) – Toronto

- GO Transit has grown dramatically from a single GO Train line along Lake Ontario's shoreline in 1967 into an extensive network of train lines and bus routes.

- Since service began, more than a billion people have used GO Transit services (train or bus) to work, to school or for leisure and it is one of the largest commuter train operators in North America.

- Currently GO Transit carries about 52 million passengers per year on its trains and 14 million on its buses. Ridership (bus and train combined) is up by 342% from 1980, and GO forecasts another increase of 85% to 2020.

- Go has very ambitious plans to expand and a $15 billion budget with which to do it, including more frequent service and the eventual electrification of its lines.

- GO operates on 7 lines extending over approximately 278 route miles (growing to 377 miles by 2020), and it owns 80% of the tracks over which it operates.

- GO's fleet is comprised of 67 locomotives and 586 bi-level passenger coaches.

- Currently GO Transit operates 1,500 trains per week and plans to increase that to 2,250 by 2020. As well, starting in 2015, the implementation of the Union Pearson Express will add another 980 trains per week, bringing the total to 3,230 by 2020.

- By the way of contrast, VIA operates about 300 trains into/out of Toronto per week.

Agence métropolitaine de transport (AMT) - Montréal

- AMT expansion and growth has also been dramatic. While it's not up to GO Train volumes, AMT is also expanding, and it has become a significant player in the Montreal area, relatively quickly.

- Ridership is up 376% since 1995; the number of trains is up by 39% since 2008, and number of lines has increased from 2 to 6, 3 of which operate out of Montreal Central Station (shared with VIA) and 3 out of Windsor Station (Lucien-L'Allier).

- With respect to Montreal rail commuter traffic, there was a continuing decline in ridership as lines were dropped and traffic declined from 1965 (13M) to 1981 (3.7M), down 72%, as CN and CP eased out of the business and the highway network and auto ownership expanded.

- During 1993-95 the Deux-Montagnes service, Montreal's busiest line, and only one of two electrically-powered lines in Canada was completely rebuilt and improved, with faster trip times and new rolling stock. The refurbishment dove-tailed well with AMT's takeover of the lines in 1996, which was followed by huge growth and expansion as new lines and equipment were added. By 2002, the volume finally caught up to the 1965 ridership level. By 2013, it had increased by 376% (17.6M) from its low in 1981, and up 35% since 1965.

- There is still much more potential to grow given the very large increase in suburban populations in the last 50 years and the ever expanding level of service. The 6th line, Train de l'est / Mascouche, started service on December 1, 2014, with a capacity of another 5,500

passengers per day. The total number of weekly AMT trains increased by 39%, or 230 trains, between 2009 and 2014, to reach 822.

- AMT will also introduce some of their new high density double-decker cars on the Deux-Montagnes line to expand capacity to meet the overflow demand, and further grow that line's ridership.

- AMT operates 822 trains per week while VIA operates about 240 into/out of Montreal.

Synergy of Inter-City and Commuter Passenger Rail

- Both Go Transit and AMT share their main terminals (Union and Central Stations) with VIA Rail.

- Union Station's track is owned by GO Transit (Metrolinx), while AMT recently purchased the Deux-Montagnes train line that runs to the northern limit of Central Station's track.

- VIA also operates over some of the same tracks as GO and AMT, including lines owned by CN in Montreal and lines in Toronto where VIA operates on tracks owned by GO Transit.

- The operating requirements and characteristics of inter-city and commuter trains are quite compatible, especially when compared to freight trains.

- Being similar, both types of services could benefit from the same investments. For example building higher speed track with greater curve elevations or track electrification is not useful to freight trains but is valuable for passenger trains.

- On the other hand, commuter trains make numerous stops over short distances whereas inter-city trains make only one suburban stop. Therefore the average speed of VIA trains over tracks shared with commuter operators is higher.

- For both types of services the busiest periods are early mornings and late afternoons/early evenings.

- This also applies to the need for track capacity at the main terminals.

- But due to much tighter scheduling compared to freight trains (minutes versus hours) and some investment, these problems can be overcome.

- In terms of cooperation, VIA has implemented inter-modal agreements with both GO Transit and AMT allowing passengers to seamlessly book connecting trips and purchase their tickets on-line on the same website, thus making inter-modality easier and more attractive to passengers.

- But there is clearly much more potential for VIA and GO / AMT to work together for the benefit of both, in terms of jointly investing, sharing assets and further expanding inter-modality and inter-connectivity to their mutual advantage and for the benefit of both their customers and the taxpayers.

APPENDIX 4

Worldwide Developments in Passenger Rail and Lessons for Canada

The Worldwide Situation

In the late 19th and early 20th centuries, rail carried an overwhelming share of inter-city passenger travel around the world. With the advent of automobiles, buses and airplanes, and the enormous investments in road and air infrastructure by governments, especially in the developed world, the market share of rail dropped precipitously after WWII.

In 1964 the Japanese started the renaissance of inter-city passenger rail with the first high speed trains, the Shinkansen (litteraly *"new main line"*), and it was accelerated by the French *Train à grande vitesse* (TGV) that went into service in 1981.

Since then, there has been an explosion of high speed rail around the world, which in essence consists of very frequent, electric powered trains that travel between 250 and 350 kph, mostly on dedicated, fully grade separated and fenced-in track, in relatively high population density corridors.

There are about 15 countries operating or building High Speed Rail (HSR) lines, representing over 36,000 km of track (almost enough to circle the Earth). They currently operate about 300 billion passenger-km annually. Assuming a distance of 300 km for a typical trip, that is equivalent to one billion passenger trips per year. Another 15 countries are currently planning or developing HSR lines. HSR is found in most Western European countries, the United States and several Asian countries. China has now taken the lead in the development of HSR and is being joined by many developing countries.

HSR provides the ability to move very large amounts of people from city center to city center very safely (e.g., not a single fatality in Japan and France since their introduction over 50 and 33 years, respectively), in an environmentally sustainable manner, efficiently and productively. HSR rail is competitive to other modes for distances of 160 up to 800 km, where there is sufficient density of population, but it has shown itself to be successful even in relatively low density countries such as Sweden.

The main economic benefit is the relief of congestion, but other socio-economic benefits include economic efficiency and growth, as HSR does for the movement of people and services what free trade does for goods, including by reducing time wasted waiting in traffic and airport line- ups. These benefits are substantial and offer tangible results such as more economic efficiency and growth and permanent jobs (beyond the construction phase), increases in land values and development, and more taxes paid to governments.

HSR is most successful when it is linked and integrated into an already existing transportation system including, commuter trains, buses, subways, and airports and airlines, and when the HSR line is an evolution from existing conventional passenger rail. The linkage and integration could be both technological and physical, such as seamless reservations and ticketing, and include convenient physical transfers and connections.

Many HSR projects and other such infrastructure projects are being developed and built in partnership with the private sector, as PPPs. There is great demand for long-term investments in all kinds of infrastructure by pension and sovereign wealth funds from around the world. The private sector could be brought in as investors, contractors, and/or operators, to bring the discipline of the private sector and financial markets to these projects. With the proper structure and incentives, the private

sector could be persuaded to share some of the financing burden and risks associated with the manufacture / building and/or maintenance of rolling stock, track and station infrastructure. There is also the possibility of sharing the financing, operational and/or revenue risk with the public sector.

The Canadian Context

Most passenger rail systems that evolved into HSR (as defined above) started with modest, incremental improvements to the network, which eventually led to the development of HSR.

In Canada's case, starting by improving the current network could bring about many of the benefits at a lower capital cost, with less risk and much quicker than implementing full HSR. The key would be to secure dedicated track for passenger rail in high density Corridors such as Toronto-Ottawa-Montreal, so that passenger rail can become much more reliable. Then, operating on a network which can allow for speeds up to 110 mph, we could add many more frequencies at times that best meet market demand. Trains operating at these higher speeds would also reduce trip times.

This would also relieve congestion on the rest of the rail infrastructure so that freight and commuters can continue to grow and thus provide the maximum economic benefits to the Canadian economy.

APPENDIX 5

The True Story of Passenger Rail

The Evolution of the Travel Market

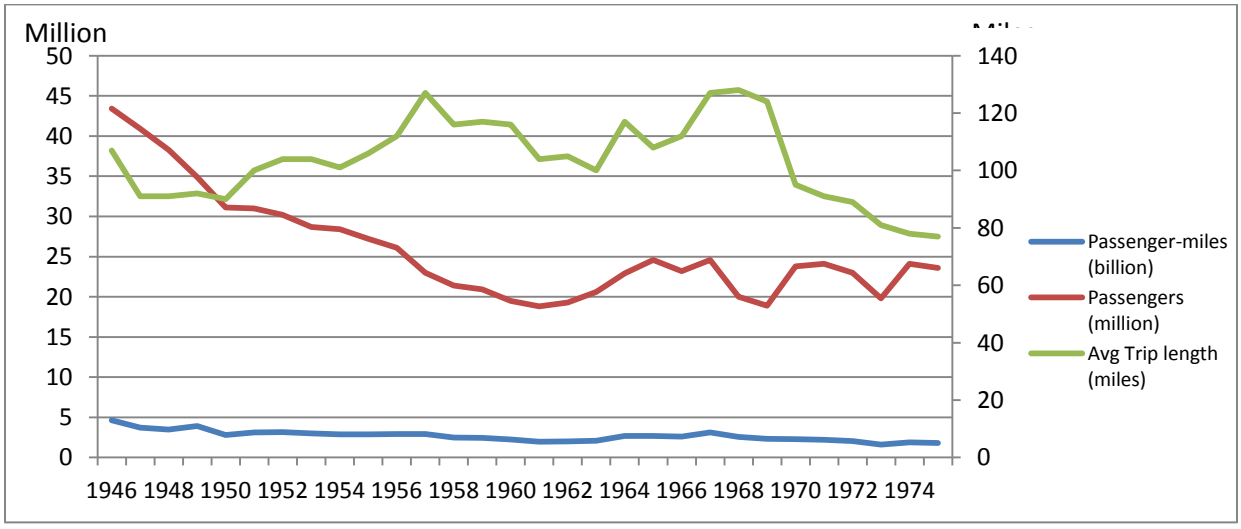
- Scheduled inter-city rail service started in 1836, making passenger trains the oldest form of public transportation still in use today, and playing a key role in building Canada.

- Until the early decades of the 20th century, railways were the dominant form of overland transportation for both passenger and freight. Rail operators faced little competition as trains alone had the capacity to transport people and freight on a continuous network that linked cities and communities, regions and countries. Thousands of miles of track were laid across Canada, acting as a binding force and playing a critical expanding social and economic role.

- In the first part of the 1900s, following the invention of the automobile and the subsequent rise of automobile ownership, governments invested massively to expand roads and highways, and rail began to lose its dominance in the short distance inter-city markets. After World War II, the airplane and the development of commercial air travel, also facilitated by huge government capital investments in airports and in the air navigation system, caused a further decrease in the demand for rail services as airplanes became a competitive alternative to long-haul inter-city services.

- Under continuous pressure from automobiles and buses on the short haul routes and from airplanes on long distance Corridors, inter-city passenger rail progressively lost market share and saw volumes and revenues decline and operating losses increase. There was a rapid and substantial decrease of inter-city rail passengers starting immediately after WWII through to the 1970s. Canada's two railways Canadian National (CN) and Canadian Pacific (CP) were losing money on passenger operations.

Table 1 - Passenger Rail Volumes in Canada, 1946-1975 (Sources: Library of Parliament Publ. No. 2011-93-E (the chart)/Statistics Canada (additional data)



Creation of VIA Rail Canada

- In the late 1950s the Federal Government appointed the MacPherson Royal Commission to develop a new national transportation policy. In 1967, the Government adopted the National Transportation Act (NTA) based on the recommendations of the Royal Commission. Since the Federal Government considered passenger trains an essential service, the NTA also contained compensation provisions for rail operators for any loss incurred in passenger operations.

- Canadian Pacific and Canadian National Railway were operating the passenger services at a loss, and were significantly reducing investment in passenger rail and concentrating more and more on the freight side of their business. By that time, both wanted to drop their legacy passenger services and only carry freight. Under the auspices of the NTA the Government agreed to cover 80% of the losses the two railways incurred in their passenger services. This funding, however, did not lead CP and CN to invest more in passenger trains. Service continued to deteriorate and ridership continued to shrink.

- By the end of the 1970s, facing growing subsidies and traffic decreases, the Government acted. Inspired by the creation of Amtrak in the United States in 1971, it ordered the Canadian Transport Commission and the two national carriers CN (then a Crown Corporation) and CP (a private company) to develop a passenger rail plan aimed at improving passenger rail (with the elimination of duplicate services, reduction of operating losses and service improvements).

- The result of that effort was the creation of a passenger rail company that would coordinate and operate as a subsidiary of Canadian National Railways, on the grounds that a separate entity with an exclusive mission to organize and provide all inter-city passenger train services in Canada could reduce costs and improve service.

- VIA was incorporated on January 12, 1977 under the Canada Business Corporation Act, becoming a CN subsidiary in February of that year.

- Later in 1977, after public hearings held by the CTC on passenger rail transportation in Canada, whose findings included a general agreement for no more reductions in passenger rail, the Government of Canada through a decision of the Privy Council (Cabinet) purchased VIA for a dollar. On March 31, 1978 the Minister of Transport, on behalf of the Government of Canada, took over the control of the money-losing passenger services.

- Effective April 1, 1978, VIA Rail Canada Inc. became a Crown Corporation under Schedule D of the Financial Administration Act., and took over all responsibility for the provision of inter-city passenger services in Canada. It was expected that VIA would eliminate duplication between the services of CN and CP, because its management's mandate was to run the passenger service, reduce costs and improve service. The Government contracted with VIA to operate these services *"in such manner as to improve efficiency, effectiveness and economy in rail passenger services in Canada."*

- By April 1, 1979 it took over the operation of all inter-city passenger rail trains from CN and CP, but not the commuter operations in Toronto and Montreal. Although VIA was responsible for the provision of efficient, effective and economic rail passenger services, its management and

operations remained subject to Cabinet decision-making and federal government spending priorities.

- The mandate given by the Government to VIA was to operate as a business in an efficient, effective and economical way. But that was, and continues to be hindered by the fact that VIA was created by an Order in Council of the Privy Council, and not from legislation passed by Parliament which would have clearly spelled out VIA's mandate, and powers. VIA was also not designated as an Agent of the Crown, therefore the company cannot seek funding in financial markets as other Crown corporations do. VIA remains vulnerable to political direction and uncertain annual federal appropriations because it does not have a legislated mandate. It therefore has difficulty in implementing a strategic direction and business decisions required to ensure the viability of inter-city passenger rail service.

- Unlike Amtrak, VIA did not get legal powers vis a vis host railways such as priority access over freight trains, a specified rate to pay freight railways for track use, the power to borrow, the ability to expropriate non-performing host railways, a formula for determining what States are required to pay for intra-state service, etc.

- Amtrak also was given very valuable assets such as railway stations, and the Boston – New York – Washington "Northeast Corridor", one of the most valuable rail assets in the world. VIA did not get any of the assets that it requires such as tracks, stations, maintenance centres, but had to buy or lease them. Basically, VIA was given all of CN and CP's liabilities and none of the assets, except those that it leased or purchased.

- VIA purchased the already obsolete passenger locomotives and cars fleets from CN and CP, but it did not get possession of stations, infrastructure and maintenance facilities. Most of the operational personnel (maintenance, train crews, procurement) still remained in the employ of CN and CP. VIA was contracting access to facilities and services under a number of agreements and gradually purchased long-term term access to stations and land to build five maintenance centres. VIA continues to pay for access to CN and CP tracks on a per mile basis but does not control scheduling, dispatching or track maintenance.

Building a Passenger Rail Company

- In the 1980s VIA built itself into a fully-fledged operating rail company but also spent a lot of energy on changing the network at federal government direction.

- VIA ordered LRC (Light, Rapid, Comfortable) trains (a total of 100 cars and 31 locomotives) from Bombardier, and they went into Corridor service in the early 1980s. VIA also acquired train crews, maintenance services and access to tracks from CN and CP through signed agreements. In 1980, VIA Rail launched its in-house reservation system and introduced business class service in the Québec City-Windsor Corridor.

- In 1981, the Federal Government cut VIA train services by 20%. VIA eliminated 400 jobs and cut the Atlantic (Montreal-Halifax train) and the Super Continental (Montreal-Vancouver) trains services along with several local services.

- During the second half of the decade, VIA Rail built five maintenance centres in Toronto, Montréal, Winnipeg, Vancouver and Halifax, giving the corporation better control over maintenance schedules and quality. VIA also hired some 1,000 train conductors, trainmen and locomotive engineers transferred from CN, giving VIA Rail direct control over train operations.

- VIA restored services to downtown Québec City after completing the full restoration of the historical Gare du Palais station. In the mid-1980's, VIA invested over $40 million between Ottawa and Brockville, reduced the trip time by 50 minutes and doubled the frequency on the Ottawa-Toronto route. This improved the service from one of the worst to one of the top two in the system.

- In 1985, the new Government reinstated about half of the 1981 train service cuts, including the Super Continental and the Atlantic.

- In 1988, VIA unveiled its first Business class lounge at Toronto's Union station, exclusively for the use of business class passengers and commenced the refurbishment of 180 stainless steel HEP1 cars built in 1955 for CP.

Major Downsizing of VIA's Network and Funding

- In 1990, in its effort to reduce the national deficit, Ottawa cut VIA's network by half, and the funding to cover VIA's operating losses was reduced from $600 million to $350 million. A total of 2,800 employees, or 38% of VIA's 7,300 person workforce, lost their jobs. VIA Rail abandoned its southern western transcontinental route (CP) in favour of the northern one (CN).

- In the early 1990's the Federal Government also ordered VIA to reduce its subsidy by another 50% and announced that public funding for passenger trains would continue shrinking from $350 million in 1990 to $170 million by 1999. Having to choose between reducing services and increasing revenue, VIA opted for another approach: increasing both services and revenue. VIA undertook a complete corporate reorganization, cutting operating expenses by about $100 million annually, and total staffing by one-third from approximately 4,500 to 3,000.

Consolidation, Growth and Efficiency: 1990- 2002

- VIA undertook a complete corporate reorganization, cutting administrative staff by 60%. At the same time, it took steps to give passengers more value for their dollar, engaged in more effective marketing to attract travellers, and reduced expenditures that did not directly contribute to increasing ridership. Travel time between Montreal and Toronto was reduced to 3 hours and 59 minutes.

- VIA Rail adopted a management approach that made excellent customer service the absolute priority. It embarked on a major campaign to improve service - particularly by adding 22 weekly departures in the Québec City-Windsor Corridor - and introduced luxury Silver & Blue class aboard the Western transcontinental, the Canadian.

- In 1995, VIA became the world's first ground carrier to be hooked up to all major airlines' reservation systems, thereby opening a large market for its products, and unveiled its first website. VIA rationalized its network of maintenance facilities by closing the Halifax Maintenance Centre as well as the heavy maintenance area of the Toronto Maintenance Centre.

- In 1995, Canadian National Railways, until then a Crown Corporation and federally owned, was privatized ending the cohabitation of two independent but government owned freight and passenger railways. The infrastructure (roadways, bridges, tunnels, signaling equipment, etc.) shared with passenger rail was privatized as part of CN, as were the assets used solely for passenger operations such as stations (land, buildings, platforms), the lands over which VIA had built its own maintenance facilities, other support buildings, etc. The hotels owned by CN were also privatized with CN, even though they were specifically built adjacent to railway stations to accommodate rail passengers.

- VIA was involved, and continues to be involved, in many partnerships with the private sector, ranging from the leasing of retail station space and intermodal bus agreements to reservation systems. VIA also provides contracted services to third parties. In 1995, after a competitive bidding process, VIA was selected for the servicing and maintenance of the Vancouver commuter service West Coast Express. In 1997, VIA launched a new online booking system, and in 1998, VIA became the first railroad in North America to merge the locomotive engineer and conductor positions and eliminating 300 jobs and saving the company over $20 million annually in operating expenses while improving customer service by introducing service managers on each train.

- In 2000, the federal government announced a $402 million investment to revitalize passenger rail service in Canada through a five year capital expenditure program including the acquisition of new rolling stock (Renaissance fleet and GE P42 locomotives), the upgrade of its infrastructure and stations, the enhancement of safety measures, new information technology systems and projects aimed at improving environmental practices. With the help of these investments, VIA surpassed the objectives set by the Kyoto Protocol of reducing greenhouse gas emissions.

- Despite the large funding cuts by the federal government, VIA did very well: by the turn of the 21st century it had developed a solid worldwide reputation for excellent customer service recognized by the coveted Global Award at the World Travel Market in London, England for its contribution to Canada's travel and tourism industry.

- Services kept improving and new products being introduced. VIA was also able to maintain a high level of performance (on-time performance averaged 85%) and achieve excellent customer satisfaction ratings (at least 95%). By 2002, the passenger revenue had increased by 83% compared to 1990 and the revenue/cost ratio jumped from 29% to 65%.

Stagnation 2003-2013: SARS, Competition, Recession, Congestion

- In 2003, SARS the public health crisis hit Toronto, VIA's largest market, and this decimated VIA ridership after 12 years of continued growth.

- The dramatic increase in the value of the Canadian dollar, increasing airline competition in VIA's Montreal-Toronto, Montreal-Ottawa, Moncton and Halifax markets, plus the requirement for passports for Americans travelling to Canada for the first time, significantly reduced passenger and revenue growth over the rest of decade. Meanwhile, VIA's rolling stock was starting to show its advanced age from a customer, cost and reliability perspective.

- Freight traffic continued to grow as did the number and size of freight trains. At the same time, commuter operators GO Transit (Toronto) and AMT (Montreal) expanded their services at an even faster rate. This increased traffic on the existing freight infrastructure and limited VIA's flexibility in scheduling or adding more trains which started to affect reliability and on-time performance.

- In 2006, VIA introduced on-board Wi-Fi providing passengers with wireless internet access aboard all Quebec City-Windsor Corridor trains, as well as in many stations in the Corridor.

- In 2007, the Government of Canada announced a five-year, $516 million investment to strengthen passenger services. That was followed in 2009, by another $407 million made available for capital projects through the Government economic stimulus funding program: Canada's Economic Action Plan (EAP). With this investment totaling $923 million, VIA has expanded track capacity, built better traffic control systems, modernized passenger facilities and stations, and renewed locomotives and rail cars. With the completion of these major capital projects, VIA is able to operate more trains, deliver faster and more reliable trip times, and provide customers with a better quality of service.

- As has been the case for other transportation modes, ridership and passenger revenues have decreased significantly during the recession that started in late 2008. Revenue decreased to reach the same level in 2013 as in 2002.

- The financial crisis also affected pension solvency and costs severely. Record low long-term interest rates have negatively affected all Canadian defined pension plans. In VIA's case, despite some very significant cost containment initiatives, pension costs went up from $4 million in 2008 to $88 million 2013.

- When VIA's total Government funding reference level of $170 million annually was set in in the early 1990's, it was not contemplated that pension contributions would be required as the pension plan was building very large surpluses. There was also no provision for inflation either for on-going capital to keep VIA's assets in a state of good repair, or for major capital requirements required for growth and increased performance.

- That reference level has since been further reduced to the current $147 million. The latest reduction took place in 2012 as part of the Federal Government Deficit Reduction Action Plan (DRAP). This was achieved with the implementation of productivity improvements yielding an on-going $8.8 million annually, train services rationalizations of Southwestern Ontario routes

and reduction of the Ocean frequencies year-round to better reflect market demands. At the same time, VIA increased frequencies on its high-potential Quebec-Montreal-Ottawa-Toronto services.

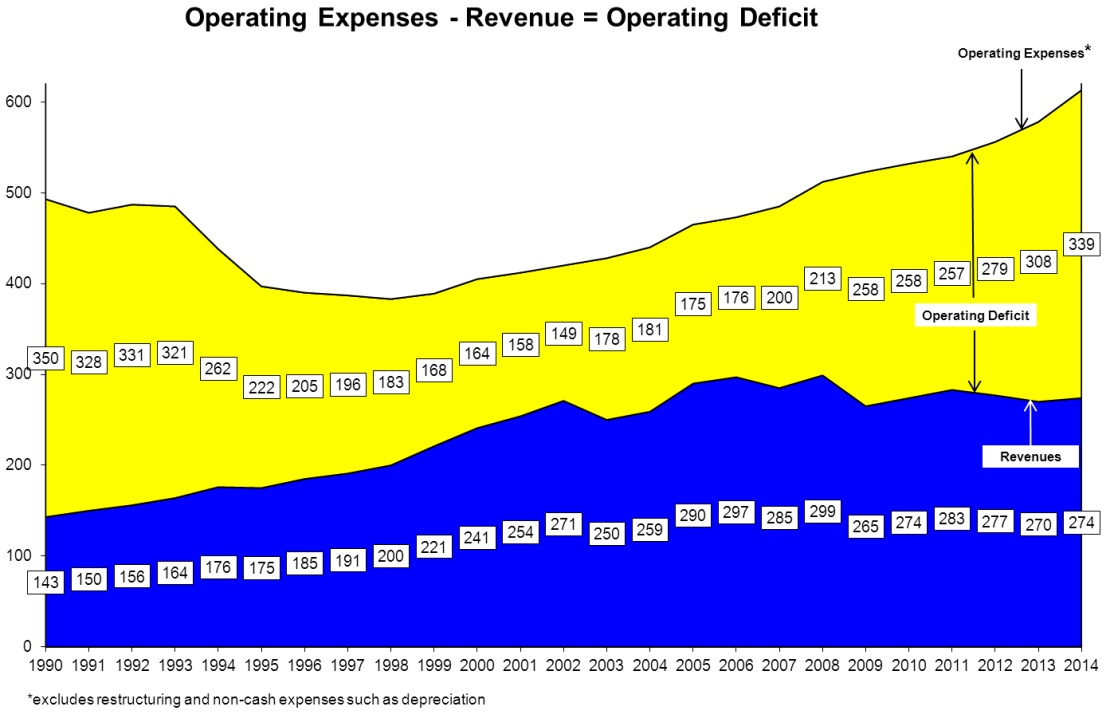
- For all of VIA's history, government funding for capital investments has been sporadic and generally insufficient. In 2010 the Government of Canada agreed that VIA requires $60 million annually to maintain its assets in a state of good repair. However, this amount is not sufficient to make major changes to the key drivers of successful passenger rail: reliability, frequency and trip time in high density markets, mainly through the acquisition of dedicated passenger rail infrastructure.

- In order to address and contain the decreases in revenue, VIA has practiced rigorous cost containment and has introduced a series of productivity improvements, compensation control and operating and maintenance cost controls. For example, staffing was reduced by 17% between 2008 and 2013 and some of VIA Rail's fleet was stored to save operating costs.

- As a result of all these factors VIA's revenue/cost ratio dropped from 65% in 2002 to 47% in 2013. Government operating funding touched the lowest level ever in 2002 at $154 million, but increased to $308 million in 2013.

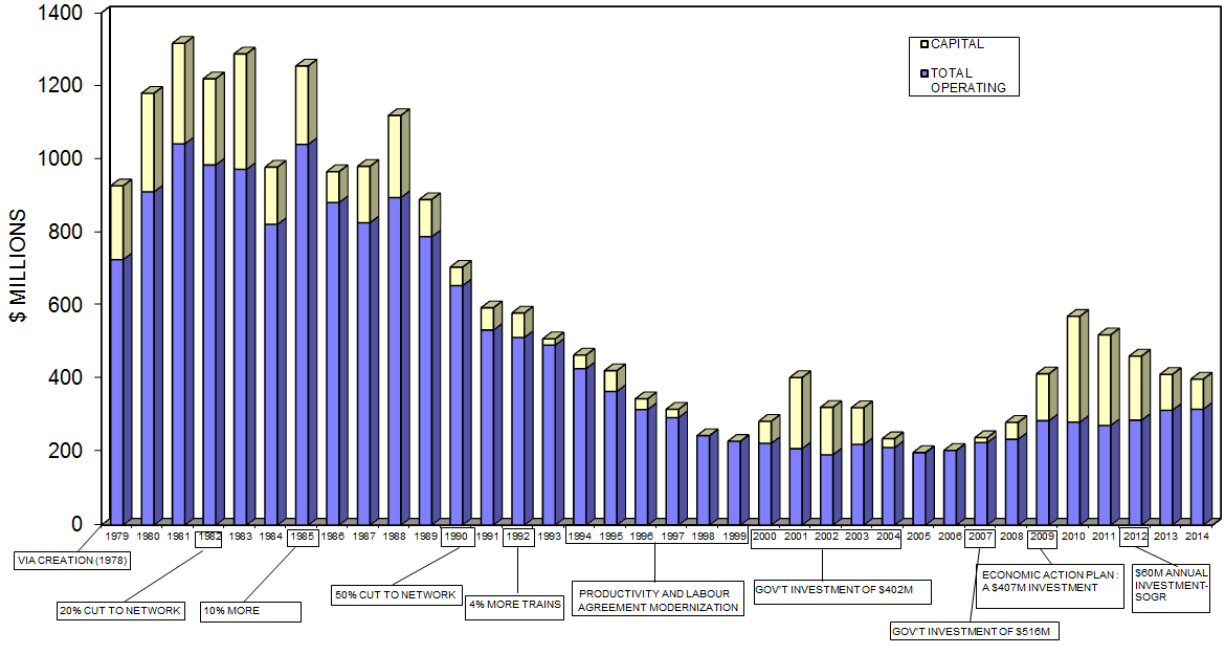
Summary of Financial Performance

- The following charts summarize VIA's financial performance.



*excludes restructuring and non-cash expenses such as depreciation

GOVERNMENT FUNDING (CONSTANT 2014 $)



APPENDIX 6

Definition of Cant Deficiency[25]

[25] Cant Deficiency, Curving Speeds and Tilt, Brian Marquis-Mechanical Engineer Volpe National Transportation Systems Center Cambridge, Massachusetts, Federal Railroad Administration

Trains operating in curves experience net lateral force (centrifugal force) to the outside of the curve that is a function of the velocity.

With super-elevation (cant), the centrifugal force acting on the passengers is reduced, or eliminated, by a component of the gravitational force (weight).

Balance speed for any given curve is the speed at which the lateral component of centrifugal force will be exactly compensated (or balanced).

Cant deficiency involves travelling through a curve faster than the balance speed and produces a net lateral force to the outside of the curve.

Cant deficiency is measured in inches and is the amount of super-elevation that would need to be added to achieve balance speed.