EVALUATION OF THE RAILROAD DEVELOPMENT CORPORATION/FERROVIAS GUATEMALA USUFRUCT OF RAIL RIGHT-OF-WAY AND EQUIPMENT IN GUATEMALA

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I. Personal Qualifications

My name is Louis S. Thompson and I reside at the address above.

1. I was educated at the Massachusetts Institute of Technology, from which I hold a Bachelor's Degree in Chemical Engineering, and at Harvard University from which I hold a Master's Degree in Business Administration. Starting in 1965 I worked for three years as an engineering consultant for The Badger Company in Cambridge, MA (two years of which were in the Netherlands). I then worked from 1968 to 1973 at the U.S. Department of Transportation as a budget specialist and as a transportation policy development specialist, with emphasis on railway policy and investment. From 1973 to 1978 I worked for Richard J. Barber Associates in Washington, DC, as a consultant in transport and anti-trust regulation. The firm's practice was specifically focused on rail structure and competition issues. I then worked from 1978 to 1986 at the U.S. Federal Railroad Administration, a part of the U.S. Department of Transportation. During these eight years, I held various positions including Director of the Northeast Corridor Improvement Project, Associate Administrator for Intercity Programs, Associate Administrator for Policy Development and Acting Deputy Administrator. In these positions, I supervised the $2.5 billion reconstruction of the passenger and freight railway between Washington, DC and Boston, MA; the development and presentation of the Amtrak budget (during which time I served as the designee of the Secretary of Transportation on the Amtrak Board of Directors); a series of U.S. Federal Government programs of guaranteed loans and direct grants to freight railroads; and, ultimately, development of federal railway policies in both the passenger and freight areas.

2. After leaving U.S. Government service, I worked for the World Bank for 17 years as the Railways Adviser, where I oversaw the policy development for World Bank lending for intercity and urban rail activities for all of the Bank's borrowing countries. In this position, I traveled to nearly every World Bank borrowing country with an existing railway and was involved in lending for both passenger and freight operations and investments. A particular part of this experience was leadership of the World Bank's effort to assist in privatization or concessioning of railways in Latin America, Africa and elsewhere. The countries in which I worked on railway privatization or concessioning included Guatemala, Argentina, Brazil, Chile, Mexico, South Africa, Tanzania, Zambia, and a number of Eastern European countries including Estonia. In addition, I advised on the concessioning effort in many other countries in Latin America (Peru, Bolivia, and Uruguay), as well as in Africa and the Middle East.

3. After retiring from the World Bank in May of 2003, I established Thompson, Galenson and Associates (TGA), LLC, a consulting company specializing in rail policy and rail financial development issues throughout the world. Specific TGA corporate experience has included analysis of rail infrastructure access charges throughout the E.U. and elsewhere, and analysis of the worldwide experience with involvement of the private sector in rail franchising,

concessioning and privatization. I have served as a member or Chairman of a number of Transportation Research Board committees, and am currently a member of the Board of Directors of the Railroad Research Foundation. I was recently appointed to be a member the Peer Review Committee that is charged with reviewing the plans of the California High Speed Rail Authority. A copy of my résumé is attached hereto.

II. Scope of Engagement

4. I was asked by Claimants Railroad Development Corporation (RDC) and Ferrovias Guatemala (FVG)[1] to assess the experience of railway concessioning in Guatemala, from the perspective of FVG, RDC and the Government of Guatemala, and to estimate the fair market value of FVG's Usufruct and RDC's investment in FVG immediately prior to the Declaration of Lesivo in order to determine the monetary damages RDC and FVG have suffered as a result of the Declaration.

III. Summary of Opinions Including Damages Estimate

5. In March of 1996, the Guatemalan railway finally collapsed as a result of many years of inadequate investment and management, and the railway was closed. Instead of attempting to re-open the railway under public management, the Government of Guatemala, consistent with contemporary experience elsewhere in Latin America, chose to transfer the railway to private management through award of a usufruct for the infrastructure and a later usufruct for the rolling stock. The rolling stock usufruct was an essential element in the overall process.

6. The Government's objectives in awarding the Usufruct were entirely reasonable, the terms of the Usufruct Contracts were appropriate to the conditions in Guatemala, and the process of awarding the contracts was transparent and in line with the normal requirements of international competitive bidding. FVG, in its bid, presented a well-formulated business plan and management team that the Government considered carefully and judged to be acceptable in all respects as well as being superior to the competing offer. Upon being awarded the Usufruct, RDC and FVG embarked on a determined effort to make the project a success, and FVG's subsequent performance met every reasonable standard for competence and commitment.

7. The Government of Guatemala and its agent, Ferrocarriles de Guatemala (FEGUA), did not live up to the same standards of performance or commitment. Although the terms of the Usufruct required that FEGUA provide FVG full and unhindered access to the properties of the railway for use in rail operations and real estate development, FEGUA never met this obligation. Although the terms of the Usufruct also required FEGUA to deposit certain funds into a Trust Fund for use in rehabilitating and repairing the railway's assets, no such monies were ever deposited and FVG was unable to maintain its track to a standard which would have permitted more efficient operation. Finally, and most importantly, for reasons that clearly have no economic or financial foundation, the Government issued a Declaration of

[1] FVG is officially named Compañia Desarolladora Ferroviaria, S.A. (also sometimes referred to as CODEFE) with the trade name of Ferrovias Guatemala. I will use FVG in this statement. The majority and controlling shareholder of FVG is Claimant Railroad Development Corporation, referred to in this statement as RDC.

Lesivo with respect to the Rolling Stock Usufruct, which had the effect of terminating all operations and development on the railway.

8. The Declaration of Lesivo on August 25, 2006[2], caused substantial harm to FVG and RDC. I have estimated this harm as US$36,161,127 in lost discounted cash flow (as of the end of 2006) that would have been earned from railway operations and real estate leasing and development from 2007 through 2048. In addition, the Declaration of Lesivo caused RDC to lose its investment in FVG. RDC's total investment from 1998 to 2006 was US$15,387,187 which, when appropriately adjusted to reflect the cost of capital to RDC, amounts to US$26,840,908 as of the end of 2006, plus US$1,033,823 in termination costs incurred in 2007, for a total loss of investment of US$27,874,732. This yields a total estimate of damages of **US$64,035,859**, before calculation of pre-award interest.

9. Furthermore, the Government of Guatemala's Declaration of Lesivo was not based on any actual economic or financial harm being caused to the country or to the country's interests as a result of FVG's use of the railroad equipment or its operation and development of the railway. Quite the contrary, the Declaration of Lesivo caused substantial economic damage to Guatemala of between US$60,239,000 and US$160,265,000 in the form of the net present value of lost taxes and fees, as well as increased transport costs and higher road maintenance costs. In addition, the Declaration of Lesivo deprived Guatemala of a secure and efficient method of transportation that could have furnished a direct rail connection to all of North America and, thus, substantially contributed to the future economic development of the country.

IV. Analysis

A. Railway Experience in Guatemala Prior to Concessioning

10. Guatemala has a 100-year history of railways that were initially built by private investors to serve particular mining or agricultural purposes. Over time, the railways in Guatemala were consolidated into the International Railroad of Central America (IRCA), which connected Guatemala and El Salvador in a narrow gauge (3 feet, or 914 mm) network.[3] Guatemala was also linked to the standard gauge Mexican network through an interchange point at Tecún Umán.

11. IRCA eventually went out of business, primarily because of the rise of highway competition. The IRCA properties in Guatemala were transferred to the Government in 1968 in partial compensation for debts by IRCA to the State. In 1969, the Government created a government owned enterprise, FEGUA, and transferred to it all of the properties previously

[2] The finding of lesión was reached on August 11, 2006 in Government Resolution Number 433-2006. It was published and became effective on August 25, 2006, in the Official Journal of the Government of Guatemala, Issue Number 100. This statement will refer to the finding as the "Declaration of Lesivo." For simplicity, though the Declaration took place in August, I have used the end of 2006 as the effective date for the calculation of monetary damages.

[3] "Gauge" is the distance between the inside edge of the rails. For historical reasons, the world's railways have many gauges, including 914 mm (3 feet), 1000 mm (Meter gauge), 1067 mm (3'6", or Cape gauge), 1435 mm (4' 8 ½" – Standard gauge), 1520 mm (5'0", Russian gauge), and 1676 mm (5'6", Argentine, Brazilian, Chilean and Indian Broad gauge). Most of North America, including Mexico, is standard gauge.

owned and managed by IRCA, along with the rights and duties pertaining to provision of rail services in Guatemala.

12. Although FEGUA managed initially to stabilize its traffic, the ensuing years of underinvestment and mismanagement caused passenger traffic to begin a decline shortly after takeover, and caused a persistent decline in freight traffic after about 1977 (See Table 1 and Figure 1). The decline in performance generated financial losses that eventually made continued operation unacceptable to the Government. In the Right of Way Usufruct Contract (Deed 402) dated November 25, 1997, the Government stated that "Rail transport became more and more deficient because of obsolete equipment and facilities, as well as inadequate investment and failures in reconstruction and modernization of the system. This resulted in continuing losses in freight and passenger traffic and financial deterioration of FEGUA to the point that it was necessary that the Government totally suspend rail service in March of 1996."

13. It is hard to overstate the importance and clarity of the Government's statement. In very direct words, the Government conceded that railway service had collapsed in Guatemala due to a failure of government stewardship. As of March of 1996, Guatemala had no rail service, and the cessation of service was solely the result of 19 years of neglect by an agency of the Government. FVG's experience after the award of the Usufruct, therefore, has to be viewed as starting from zero (actually far less than zero) and not as the handover of a thriving and healthy railway to a private investor. Indeed, in its Business Plan submitted as part of its bid proposal on the Usufruct (sec. 4.0), FVG noted that, because the railway had been out of service since March 1996 and was not generating any income, "[t]he successful reestablishment of cargo train operations on FEGUA railways shall require a significant investment in the infrastructure and rolling stock." This is a critical point in answering the "compared to what" question that measures the purported "harm" that the Government of Guatemala now claims to have suffered in its Declaration of Lesivo.

14. The Government's failure (through FEGUA) to operate the national railway and the subsequent decision to attempt concessioning were not unusual in Latin America. Indeed, in the early 1990s, the governments of Argentina, Brazil and Mexico also concluded that their railways would face collapse and closure in the near future if they continued in public hands.[4] The governments of Bolivia, Peru and Chile reached similar positions at roughly the same time. The only hope in all of these countries was a new approach. At the beginning of the decade of the 1990s, all Latin American railways were publicly owned and operated, and all were financial and operational disasters. By the end of the decade, virtually all Latin American freight (and many passenger) railways were operated by private management, and the results, other than in Guatemala, have been largely positive – significantly more positive than the years of public mis-management.

B. The Stated Objective of the Government of Guatemala in Awarding the Usufruct

15. The Government's objective was clear when it decided to have a private investor take over operation of the national rail system. It stated "The Government of Guatemala has fixed the objective to reestablish the functioning of the rail system because it is important for the economy in order to support the productive activities of the nation but, at the same time, to exit

[4] Kopicki and Thompson (1995), Thompson, et al (2001) and Kogan (2004) contain thorough descriptions of the collapse of the Latin American railways in the early 1990s and of the decisions of governments to restructure them (primarily through long-term concessioning). The full references are at the end of this statement.

from its function as the rail operator and all the related functions that are combined into the activity of the rail transport enterprise."[5] The Government stated further that it wanted to "improve the overall stability of the economy and the productive infrastructure, enhance access to services in a competitive environment, expand the business base and optimize the fiscal benefits [of rail services]."

16. The Government's unmistakable objective was to re-establish rail service because it was important to the nation to have such services. The chosen approach was to get the Government out of rail operations and allow the private sector to do the job. The Government did **not** choose to allow FEGUA to continue to fail. Nor did the Government specifically choose to shut the railway down and sell it for scrap (as had been the case in Nicaragua). Instead, the Government decided to pursue an approach generally consistent with the contemporary approaches being followed elsewhere in Latin America, i.e., it chose to support continued operation of the railway under more effective, private management.

C. The Government's Objectives and Policies in Awarding the Usufruct Were Reasonable

17. The Government was certainly correct in concluding that FEGUA had failed and that there was a need to re-establish rail service in Guatemala. The collapse in railway traffic is clear from Table 1 and Figure 1. In addition, as the Government also concluded, the economy of Guatemala is heavily dependent on transport, especially to and from the major ports. Railway transport historically played a significant role in Guatemalan foreign trade, with traffic roughly balanced between imports and exports and, with an appropriate management approach, would have been able to expand its role in the future.

18. The Government was also correct in concluding that continuing with FEGUA under public management would have led to permanent demise of the railway. The experience in Nicaragua (where the railway expired totally) and in Costa Rica and El Salvador (where the railways are at best moribund) established beyond a doubt that neglected railways in Central America can, and will, vanish.[6] Governments in Argentina, Chile, Brazil, Bolivia, Peru and Mexico had reached the identical conclusion: their public sector management simply lacked the skills, motivation and committed resources needed to manage railways in competition with privately managed trucking, bus and airline companies. It is certain that, absent a change in policy, rail service in Guatemala would never have been restarted after cessation in 1996.

19. The basic concept of the Onerous Usufruct in Guatemala was fully in line with the contemporary practice as of late 1997 in a number of other Latin American countries in which I was working at the time (Argentina, Brazil, Chile and Mexico). Although the detailed approach varied from country to country in line with local circumstances, all of these countries decided in the early to mid-1990s to offer their freight railways in 30 to 50-year concessions to private investors.[7] The terms of the concessions were of course different among countries because the

[5] The full citation and quotation from the Licitación is attached at the end of this statement.

[6] See, e.g., http://FENADESAL.gob.sv, and Janes World Railways for descriptions of the status of railways in El Salvador and Costa Rica

[7] It is my understanding that, in Guatemala, a "concession" may not extend beyond 25 years, whereas a "usufruct" may have a longer term of up to 50 years, which may be extended. Most other Latin American countries use the term "concession" for all long-term commitments of public assets to private parties. In Mexico, for example, the rail "concessions" had a 50-year term. For the purposes of this statement, I will

physical condition of the railways, the size and stability of the existing traffic base, the economic prospects and the severity of competition from trucking companies were different in each country. Argentina (Buenos Aires) and Brazil (Rio de Janeiro) also concessioned their suburban passenger railways and Metros for the same reasons.

20. As the World Bank's Railways Adviser, and the person who was leading the Bank's efforts to assist railways around the world, I met with Guatemalan officials beginning in late 1995 and continuing through 1996 and 1997 to discuss the issues involved in railway concessioning. I attended a conference in Guatemala City in October of 1997 to discuss railway concessioning in Guatemala. The opinion I expressed to Guatemalan officials beginning in 1995 was that concessioning of the railway assets – right of way and equipment -- would be feasible, but only with absolutely minimum conditions imposed on the concessionaire and with minimum expectations as to the value of payments from rail operations to the Government.

21. Both the World Bank[8] and the International Finance Corporation (IFC – a part of the World Bank) expressed the position to Guatemalan Government officials that, given suitable conditions for concessioning and a responsible concessionaire, the World Bank and IFC would consider financing the concession in an appropriate way. The World Bank would have required a request from the Government, whereas the IFC would have worked directly with the concessionaire after the concession was awarded. Both the Bank and the IFC had been active in financing other rail concessions in Latin America and were fully familiar with the issues involved.

22. The terms for the Usufruct as advertised by the Government were in line with the Bank's recommendations and with similar experiences elsewhere. The Government offered the railway as an integral usufruct with very little regulation and with almost complete freedom for the concessionaire to make maximum use of all railway assets, including rights-of-way for ancillary commercial activities, in order to develop the full potential value of the assets and, thus, improve the venture's chances for success. In addition, unlike some railway concessions elsewhere (Argentina, Brazil and Mexico, for example) where the traffic potential, operating cost and physical condition of the railway were relatively well established by past experience, the Guatemalan Government rightly did not ask for a fixed payment up front, or even a guaranteed annual payment from the concessionaire. Instead, potential concessionaires were asked to bid on the maximum percentage of gross revenues to be paid to the Government. This approach minimized the concessionaire's up-front risk while maximizing the Government's eventual returns if the concession were successful.

23. In summary, the Government of Guatemala's approach to the concessioning of the railway system was consistent with experience elsewhere and with the concessionaire's reasonable expectations, assuming that the Government performed its obligations after award of the Usufruct and did not interfere in the management of the venture.

D. The FVG/RDC Proposal and the Business Plan on Which it was Based were Reasonable

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use the terms "concession" and "usufruct" interchangeably to describe the exclusive rights to operate the railway system and use and exploit the system's assets that Guatemala awarded to FVG.

[8] The official name is The International Bank for Reconstruction and Development, or IBRD, but the commonly used name is the World Bank.

24. It is my opinion that FVG's Proposal and Business Plans, which were prepared and submitted in May 1997 in response to the Government of Guatemala's request for bids, were reasonable. Given fully open information and appropriate advertising of the request for bids, the Proposal and Business Plan were obviously deemed reasonable from the Government's point of view in that the Government judged FVG's bid to be consistent with the Government's Licitación (Request for Bid) terms and superior to the other bid submitted.

25. RDC, in support of FVG, has had wide-ranging experience in rail investment and operations in a number of countries. Since 1987, RDC has performed dozens of reviews of railway investments worldwide in a highly diverse environment. While it is true that the U.S. short line railroad industry is highly sophisticated and well-developed, what is unique about RDC is its exposure to, and experience in, environments well beyond the traditional North American business models.

26. RDC has played a significant role in a number of successful Latin American rail freight concessions, including Argentina, Brazil and Peru, which were comparable to, or larger than, FVG. (see Table 7). There was little in the Guatemala Usufruct that RDC had not already handled with success elsewhere in Latin America. Examples of projects outside Latin America that RDC has evaluated and bid upon include the Nacala Railway and Port in Mozambique, New Zealand Rail (which included passenger and steamship services), diesel light rail passenger operations in New Jersey, intercity passenger service in Europe and intercity bus service in the USA -- in other words, a broad range of railway and railway-related businesses. It is also noteworthy that RDC was not the successful bidder for many of these concessions as its financial discipline did not permit it to overpay or over-commit. This is one of the key reasons that RDC has been successful in raising financing.

27. RDC's proven business record is further demonstrated by the ongoing financial results of its operation of the Iowa Interstate Railroad, by the premiums paid by the buyers when its interests in Estonian Railways and the Nacala Corridor were sold in 2007 and 2008 respectively and, most recently, by the enthusiastic reception RDC has received in France with the recent announcement of a joint venture to rescue that nation's rail freight wagonload business through the creation of North American-style short lines.

28. With regard to its bid on the railway usufruct in Guatemala, RDC used the same discipline it employed in other transactions – namely, beginning with reasonable revenue projections and building a business model around them. Even with RDC's demonstrated experience, demand forecasts, especially in developing countries such as Guatemala, are always subject to a range of uncertainty. However, an experienced rail professional can judge whether forecasts are reasonable and defensible.

29. In reaching such a judgment, it is necessary to view FVG's specific railway traffic forecasts for Guatemala as set forth in its Business Plan with certain foundational observations and assumptions. First, railway traffic had declined over a period of many years of poor management and bad service by FEGUA. Moreover, by the time the Usufruct was actually awarded to FVG, FEGUA had ceased operation for more than a year, and it was difficult to forecast with certainty which traffic would indeed come back to the railway after the period during which shippers had become dependent on alternate modes (primarily trucking). Second, because the railway had not been in operation for more than a year, the actual physical condition and continuity of the track and the condition of the rolling stock were unclear. Third, with little or no FEGUA experience available for evaluation, assumptions about the price

elasticity of demand for various cargos and shippers were necessarily an informed judgment based on experience in other similar markets. Fourth, the base of economic information in Guatemala was less than would have been available in many other economies, and, of course, economic forecasts about the future of the Guatemalan economy were difficult because Guatemala had just emerged from the longest civil war in Latin American history and because the course of the Guatemalan economy is critically dependent on other economies such as Mexico and the U.S. Nevertheless, and subject to these inherent limitations, I believe that the demand forecasts utilized by RDC in the FVG Business Plan were reasonable. And, in accepting the FVG Proposal, the Government clearly did not believe them to be **un**reasonable.

30. Table 2 contains a description of the Phases (I through V) FVG planned to undertake in reopening the railway, as set forth in FVG's Business Plan. Figure 2 displays the Phases on a map of the system. FVG, however, only committed in its Business Plan to completing Phase I, i.e., reopening the Atlantic Corridor. The remaining four phases were to be completed "according to business conditions" and if the capital investments could be economically justified.[9] Tables 3 and 4 show the total demand projections for tons and revenues. Table 5 contains an estimate of FVG's annual traffic in ton-kilometers and estimates the revenue/ton-km. The total projected tonnage, 994,500 tons at the end of Phase V, was only 13.3 percent of the estimate in the Government's Licitación of 7,500,000 tons of traffic described as "Atraible por ferrocarril." (see Licitación of Feb 1997, section entitled "Situacion Actual del Sistema Ferrviario de Guatemala"). Moreover, the "Estudio Plan Maestro Nacional de Transporte," pp 198-199 (included in the above Licitación), estimated potential total rail demand in the year 2010 of 3.5 million tons (low estimate) to 5.0 million tons (high estimate). In other words, the demand forecasts in the FVG Business Plan were only 13.3 percent of the Government's estimates of the total market of traffic potentially attractable to rail, and they were only 20% to 28% of the rail demand actually forecast by the Government in the National Master Plan for Transport. Although the FVG Business Plan used higher market shares (20% to 80%) than did the Government's estimates, these shares were applied to very specific markets and were not, in my opinion, unreasonable for the low-value commodities they represented. With respect to the only high value commodity to be carried by FVG, containers, the Business Plan foresaw that FVG would attain only a 20% market share of projected container traffic between Guatemala City and Puerto Santo Tomás.

31. It is extremely difficult to compare rail tariffs among countries because of the very different conditions that exist in each country. There are different mixes of commodities, different topography and different cost levels for inputs. A particular difference is the average length of haul among countries: a short length of haul, *ceteris paribus*, will produce a higher average tariff (revenue/ton-km). The comparison problem is aggravated by the need to convert between currencies using exchange rates that may not be fully comparable. The average revenue per ton-km used in the FVG Business Plan can be estimated at about 0.4542 Quetzals or US$ 0.059, as shown in Table 6. Allowing for the uncertainties mentioned, a comparison of the FVG revenue/ton-km with other railways in Latin America and with the smaller European Union (E.U.) railways shows that the FVG expectations were, in my opinion, well within the reasonable range given FVG's relatively small size and its short average length of haul.

32. The physical scope of the Business Plan – essentially rehabilitation of up to 700 kilometers of track and related rolling stock – was entirely feasible. The track rehabilitation plan called for restoring the track to U.S. Federal Railroad Administration (FRA) Class II track (about 40 km/hr), which is reasonable for the type of traffic forecast, the conditions in Guatemala and

[9] FVG Business Plan at § 4.0

the capabilities of the rail and rolling stock. U.S. branch lines and short lines frequently operate using Class II (or below) track, and the technology and procedures for inserting the appropriate number of cross ties are well established.[10] The decision to use the existing rail (around 60 pounds per yard), which is light by U.S. standards, was appropriate given that the existing axle load limitations could be accepted for the traffic levels expected. Both the locomotive and wagon rehabilitation programs were reasonable given that the rolling stock had been neglected for years. It was also certainly feasible to plan on rehabilitating 5 locomotives, 54 platform wagons and 5 cabooses at the outset, and the entire projected fleet was smaller than the fleet of most short line railroads in the U.S.

33. FVG's operating plan called for 77 - 80 employees to operate the railway in Phase I. Table 7 shows that the resulting productivity per employee, in terms of employees/km of line, would have been somewhat below Latin American railway concession practice, but that is because the traffic density (ton-km/km of Line) would have been well below most of the other concessions. Output per employee (annual ton-km/employee) would actually have been below all but one of the other Latin American railway concessions. In fact, if labor productivity levels comparable to Argentina could have been achieved, the entire railway up through Phase V could have been operated with the same 77 people. Thus, FVG's labor estimates were quite reasonable. In fact, FVG could have reasonably projected higher labor productivity and lower labor costs than what was projected in the Business Plan.

34. In addition, FVG, through RDC, had access to, and consistently benefited from, a fully experienced railway management team, with particular experience in operating short line railways (which is the most similar experience to railway operations in Guatemala). There was nothing in the operations of FVG that posed any unusual technical or managerial challenge in short line railway terms, and the team that RDC and FVG acquired was fully up to the job.

35. In its Proposal and Business Plan, FVG committed to an initial US$10 million investment to rehabilitate the railway line and rolling stock (i.e., locomotives and freight wagons), even though the Government's Licitación did not require a fixed payment up front. The Business Plan further stated that FVG had an agreement with its parent corporation, RDC, to provide sufficient financial and administrative support "…to accomplish [FVG's] obligations under the bid terms, and the subsequent contractual requirements resulting from the grant of the concession." In fact, for reasons to be discussed below, FVG actually received much more financial support from RDC than could have been reasonably expected.

36. Crucially, the structure of the Usufruct, with FVG making Canon payments to the Government based on gross revenues, appropriately matched risk with reward for all participants. It would have been unreasonable for Guatemala to require FVG to make significant payments up front because of the uncertainties in demand growth and asset conditions. At the same time, it would have been fruitless for the Government to ask for a share of net income, because the accounting issues in determining net income are complex and unpredictable (and, of course, if there were no net income – as had been the case since at least the time at which FEGUA was created – the Government would have received no payment at all). Moreover, gross revenues are easily verified.

[10] The U.S. Federal Railroad Administration's (FRA) track safety standards recognize six classes for freight service, according to traffic and maximum speed. Class II is the second lowest track quality and is used for light service freight lines.

37. At the same time, basing the Canon payments on gross revenue reduced FVG's risk because the payments would only be incurred to the degree that the revenues actually materialized. It is also important to emphasize here that the Canon fees applied to real estate development as well as to operating revenues. That is, the Government had the same stake in the success of real estate development that it did in realizing success in the freight business: the more successful FVG was in generating real estate revenue, the more money the Government would receive. Equally important, the Usufruct was for 50 years, with a potential extension for another 50 years, which ensured that the typical start-up uncertainties could eventually be overcome within the longer time frame. Given the uncertainties of restarting a railway in Guatemala, the long time frame was essential in securing a responsible investor.

38. In addition to the normal commercial issues involved in business planning, the FVG Business Plan was inherently based on two assumptions, both of which were reasonable: (i) full use of the railroad rehabilitation trust fund monies to be generated by payments from FEGUA (as subsequently reflected in Deed Number 820 dated December 30, 1999), and (ii) rapid and effective action by FEGUA (backed by the Government) to deliver and maintain clear access to the right of way as and when requested (see Deed Number 402 dated November 25, 1997). Failure on each of these had an adverse impact on the success of the concession prior to the Declaration of Lesivo.

39. By initial agreement ratified in Deed 820, FEGUA was required to deposit its share of the receipts from certain real estate developments into a trust fund to be used by FVG for investment in and rehabilitation of the right of way. By the end of 2006, these monies should have accumulated to approximately US$3.1 million since the inception of the agreement, as shown in Table 8.[11] In fact, FEGUA did not honor its commitment, and FVG did not receive any of the trust fund money on which it had a right to rely.

E. FVG and RDC Performed Reasonably and Professionally

40. By December 1999, FVG completed the rehabilitation of the Atlantic corridor segment (Phase I) and the necessary rolling stock, although the effort was made more difficult by the Government's failure to comply with the provisions of the Trust Fund agreement. In fact, RDC eventually invested approximately $15.4 million in FVG, which was well above the US$10 million commitment that it had made in the Business Plan. Forty-five months after FEGUA's collapse in March, 1996, trains began to run again in Guatemala.

41. Initial results were promising. For example, safety is a sensitive measure of management competence and determination. As Table 9 shows, from 2000 to 2005 accidents and days of work lost due to injuries remained stable or declined. As promised in the Business Plan, FVG made a strong effort to develop railway traffic from all sources. It aggressively and successfully began developing non-rail sources of income from real estate leases. Unfortunately, despite the progress it was making, FVG was ultimately stymied in its efforts by the Government's Declaration of Lesivo.

42. Overall, I cannot identify any specific areas in which FVG or RDC could reasonably have been required to try harder or do better, particularly given the deep hole that

[11] Because FEGUA has never provided an accounting of how it has discharged its fiduciary responsibility for the Trust Fund, the estimated Trust Fund shortfall set forth in Table 8 is based on estimates developed by FVG using information available to it.

FEGUA's previous failures had dug, and given the difficulty of working with a "partner" whose conduct had damaged the important element of mutual trust.

F. FVG's Business Outlook Just Before the Declaration of Lesivo

43. Immediately prior to the Declaration of Lesivo, FVG was pressing hard to achieve the railway and real estate objectives in its Business Plan. Although implementation of the original plan had been somewhat delayed, in part because of the Government's failures to meet its contractual obligations, Phase I (the Atlantic Operations) was complete and this part of the railway was in full operation.

44. Because of FVG's marketing and maintenance efforts, traffic was growing and accident rates were falling prior to the Declaration of Lesivo. FVG's traffic tonnage grew between 2000 and 2005 at a faster rate than any of the other Latin American concessions had achieved in their initial years (see Table 6).

45. In a broader context, freight railway concessioning in Latin America was proving, in general, to be a credible approach to rescuing economically needed rail freight services when governments had failed at doing so. In comparison with other similar railway concessions, there was every reason to conclude that FVG would perform just as well, possibly better than, its Latin American comparators.

46. Prior to and at the time of the Declaration of Lesivo, RDC exhibited a credible and continuing determination to underpin FVG's financing requirements despite the Government and FEGUA's lack of compliance with the terms of the Trust Fund agreement. For example, the Financial Statements report as of December 31, 2005, said on page two "… despite the fact that the Company has suffered recurrent losses in its operations, which have led to a reduction of its paid-in capital, there are financial contributions from the principal shareholder to support continuity of operations normally. Consequently, the financial statements at December 31, 2005 and 2004 are presented on the basis of going concern and **do not include any adjustment related to the risk of continuity as a going concern**." [emphasis added] Similar remarks were used in every FVG Annual Report prior to the Declaration of Lesivo. This is clear recognition by an independent accounting firm of RDC's demonstrated support and the credibility of its determination to continue with that support as long as it saw a reasonable expectation of success.

47. As Table 10 shows, through 2004 (when rail revenue peaked) and much of 2005 (when tonnage and non-rail revenue peaked), there were very good reasons to believe that FVG's long-term success was achievable and likely, especially given that only a few years of the 50-year (potentially 100-year) Usufruct had passed. Though there were problems and challenges, there was still ample time for a patient and committed investor such as RDC to succeed. FVG and RDC had demonstrated considerable skill and commitment, and they clearly had demonstrated their determination to make the Usufruct a success.

G. The Estimated Value of FVG at the Time of the Declaration of Lesivo.

48. The fair market value of FVG's estimated lost profits immediately before the Government's Declaration of Lesivo on August 25, 2006 can be estimated with reasonable confidence through use of a discounted cash flow methodology that is based upon using, for the major revenue and cost variables, a reasonable range of values and the central tendency of

those values. Such an estimate is based on the economic conditions at the time combined with a reasonable business model. While any such model can be attacked on its details, the central fact is that investors operating under Bilateral Investment Treaty regimes are entitled to legitimate expectations based upon reasonably foreseeable events, particularly when there is a reasonable history of their progress. Governments which impair or destroy those investments are not entitled to rely upon cataclysmic or unpredictable events, including their own breaches of contract or other illegitimate interferences to devalue those expectations.

49. Normally, such value determinations are based upon the investment concessionaire's own business plan, especially where that business plan has been fully disclosed to and accepted by the government prior to its award of the concession, as was the case here. In this case, because the quality of the Business Plan was worth up to 70 percent of the weighting factors used by the Government in determining the winning bidder (and was specifically incorporated as an exhibit to Deed 402, the Right of Way Usufruct Contract), it is particularly reasonable to utilize the Business Plan as a foundation for establishing the pre-lesivo value of the Usufruct.

50. In order to develop an estimated fair market value of FVG's expected profits as of the Declaration of Lesivo, I have adapted the business planning model originally used by FVG in preparing its bid and in preparing its subsequent business plans in the years after railway operations began. My planning model is developed in an Excel spreadsheet that was modified from the original FVG business planning model. It starts with the actual FVG results through 2006. The model then uses the relationship between various types of costs and operating variables and their growth rates to project what would have been the company's performance over the remaining 42 years of the Usufruct. For example, the cost of fuel is related to the number of tons carried and to the price of energy. By forecasting the tons carried and the price of energy, the model forecasts the cost of fuel. Similar calculations are performed for all categories of cost to produce a total estimated cost for operating the railway.

51. My model consists of three major components: (i) a projection of the North Coast/Atlantic operations; (ii) a projection of the South Coast/Pacific route's operation plans, including the estimated investment that would have been required to put this segment into operation; and, (iii) a projection of the expected income from leasing and development of the right of way and real estate properties included within the Usufruct. The estimated real estate values in the model were analyzed and determined separately by railway real estate expert Robert MacSwain as set forth in his report, "Valuation of Right of Way, Yard and Station Real Estate Granted in Usufruct to Ferrovias Guatemala" and included within the overall business planning model. The model analyzes the period from 2007 (the first full year after the Declaration of Lesivo) through the year 2048, the last year of the Usufruct.[12] My model estimates railway demand based on FVG's actual experience prior to the Declaration of Lesivo, and on its plans for the Pacific route operations. The demand estimates take into account trends by commodity as well as the expected rail shares in flows (such as import containers from the Atlantic ports to Guatemala City) where rail and trucks compete. Based on the traffic flows developed by the demand models, the model estimates the various investments needed, along with the financial and operating costs for each year.

[12] No assumption was made about continuation of the usufruct beyond the initial 50 year period.

52. My model's results are grouped into two scenarios. **Scenario One** shows the estimated results of real estate leasing and development for the entire right of way along with railway operation only on the Atlantic route. In this scenario, the connection at Tecún Umán remains as a cross border facilitation operation between Guatemala and Mexico, but does not carry rail traffic further south. In **Scenario Two**, the results of opening railway operations on the Pacific route are added to the real estate and the Atlantic side railway operation. In this scenario, because the Pacific side would have been converted to standard gauge consistent with the rest of North America, Tecún Umán would become a rail connection extending to Esquintla and Puerto Quetzal and not just a border crossing point for interchange with trucks and the Mexican connecting railway (the FCCM concession). Figure Three is a map showing the facilities involved in the two scenarios.[13]

53. The output of the business planning model is an income statement and a set of physical indicators (tons, ton-km, etc) that serve as the basis for the parametric cost and revenue projections.

54. The results of the scenarios are summarized in Table 11, which shows the estimated values of the two Scenarios. Table 11 also shows three other important values: (i) the value to FVG that would have been generated had the Government elected to apply for a World Bank loan to finance the re-opening of the South Coast/Pacific segment; (ii) the value to the Guatemalan economy from having rail service that is about 30 percent cheaper than trucking (that is, how much the railway would save the economy as compared with all-truck transport); and (iii) the projected savings to Guatemala in road maintenance costs that the rail traffic would permit. Table 11 shows these values when subjected to a discount rate of ten percent.[14] I have applied a ten percent discount rate for a number of reasons: (i) ten percent is a common standard for use in analyzing and valuing long-term infrastructure investments; (ii) it is the discount rate that was used by FVG in its Usufruct bid proposal[15]; and (iii) it is the rate that is commonly used in real estate valuation analysis.[16]

55. Table 11 shows that, under a discount rate of ten percent, the estimated after-tax and after-fee income to FVG under Scenario One from 2007 through 2048 is US$36,161,127, and under Scenario Two is US$35,520,624. The Government would have received over the life of the Usufruct about US$11,657,423 in income taxes under Scenario One, and it would receive US$7,068,591 in income taxes under Scenario Two. The Government would also have

[13] Scenario One includes only Phase I railway operations, while Scenario Two includes both Phases I and II railway operations. Phase III was not included in Scenario Two because Cementos Progreso never evinced adequate interest in establishing a direct rail connection. Phase IV was also not included because the failure by FEGUA to remove squatters made it infeasible. Phase V was not sufficiently high priority to justify inclusion in business planning.

[14] A discount rate is a way of comparing cash flows in future years with their value if received today. The general effect is that, for a given future cash flow, higher discount rates will reduce the present value, as will postponing the flow until later years.

[15] See FVG's submitted Envelope B proposal (Economic Offer), which sets forth its ten percent Canon fee proposal (5% for the first 5 years, 10% thereafter), where FVG used a ten percent discount rate to determine that the estimated current value of the projected payments to FEGUA amounted to approximately 38 million Quetzals.

[16] See Robert F. MacSwain, "Valuation of Right of Way, Yard and Station Real Estate Granted in Usufruct to Ferrovias Guatemala," paragraph 4.2 (c)

received US$14,948,455 in fees from real estate and Atlantic operations (Scenario One), and US$32,861,293 in fees from real estate, Atlantic and Pacific operations (Scenario Two). Thus, the total value of benefits and net income from the Usufruct (summing both the value to Government and to FVG) using the ten percent discount rate would be US$62,767,005 under Scenario One and US$75,450,508 under Scenario Two. Table 11 shows three additional numbers using a ten percent discount rate – the increase in value to FVG if the Pacific investment could have been financed at World Bank lending rates (around five percent interest) rather than commercial rates (ten percent interest), the savings to the Guatemalan economy as a result of the availability of rail service (with rail rates at 70 percent of truck rates) and the reduction in road maintenance costs from moving traffic via rail rather than by road.[17]

56. The Scenario One spreadsheet permits an approximate estimate of the after tax and fee value of real estate alone, and yields an amount of US$34,807,000. Thus, the real estate development values were the critical underpinning of the Usufruct. Addition of the Atlantic operation increases the net present value (10 percent discount rate) of the total Usufruct by only US$1,354,127. In fact, it had been fully recognized by FVG and the Government from the beginning that operating the Atlantic segment alone would not be viable, but would have to be supported by full development of the real estate assets. This is not an unusual situation for many railways that actually operate as a mixture of transport and development activities.

57. Next, Scenario Two shows that the Pacific operations would have required significant investment at first, followed by a multi-year period of development before such operations became fully profitable. As a result, Table 11 shows that the net value to FVG of adding the Pacific operations would have been minimal or even slightly negative. At a 10 percent discount rate, FVG's net present value would have actually decreased by US$640,503. Thus, the ability of FVG to conduct the Pacific operations would have been critically dependent on access to low cost finance because it would have been unreasonable to take on the significant extra risk for no added value to FVG. This conclusion, again, was expressed in FVG's original Proposal and Business Plan provided to the Government, which clearly stated that FVG was only committed to Scenario One, i.e., Atlantic operations along with leasing of real estate assets, with addition of the Pacific operations being possible only with the availability of favorable Government or third party financing.

58. A further critical observation about Scenario One is that it would have been much better for **Guatemala** if the railway had remained in operation. Clearly, FVG would not have gained much financially from Atlantic rail operations in addition to the real estate assets, but operating the Atlantic railway was obviously a well understood part of the original offering. FVG still would have been acceptably profitable under Scenario One (US$36.2 million), but the Guatemalan economy would have derived even more benefit (more than US$60 million) from the payments it received, as well as from savings in transport costs and road maintenance. Under these conditions, the Government's stated original objectives were entirely reasonable, and could well have been achieved had it not issued the Declaration of Lesivo.

59. Scenario Two demonstrates this point even more strongly. Even though FVG would not have derived any added financial benefit from Scenario Two, the value to Guatemala would have been even greater (more than US$160 million). Thus, the country would have been

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[17] The numbers in Table 11 have been computed as of the end of 2006 (the date of the Declaration of Lesivo).

much better off if the Government had been willing to finance the entire cost of the capital investment in the Pacific operations (and, of course, the Government would also have owned the new facilities subject to the Usufruct).

H. Adjusted Value of RDC's Lost Investment

60. The Declaration of Lesivo also caused RDC to lose the value of its investment in FVG. Table 12 shows the flow of RDC's investment into FVG from 1998 through 2007. The total amount of investment in nominal dollars from 1998 through 2006 was US$15,387,187. In 2007, RDC invested an additional US$1,033,823 in FVG, principally to cover termination and wind-down costs for the business, for a total cumulative investment of US$16,421,010 in nominal terms.

61. Table 12 next displays a calculation of the adjusted value of the lost investment as of the end of 2006 based on three possible approaches: (i) using a constant 10 percent interest rate; (ii) using the regulatory cost of capital as prescribed by the U.S. Surface Transportation Board (STB) for use in calculating allowable costs in revenue adequacy proceedings; and (iii) using the Consumer Price Index in Guatemala.

62. The constant 10 percent rate is presented because, as explained above, it is consistent with the rate used in the Business Plan Scenarios and the Real Estate analysis discussed above. It also matches the rate typically used for analysis of investment programs in infrastructure. Using this rate, the value of the lost investment is US$26,840,908 adjusted through the end of 2006.

63. A very strong argument could be made for using the regulatory cost of capital prescribed by the U.S. STB for Class I Railroads.[18] Each year, the STB calculates the weighted average cost of debt carried by the U.S. Class I Railroads. Next, the STB calculates the cost of equity for the U.S. Class I Railroads based on the STB's assessment of the combination of dividends plus growth in equity value that the Class I Railroads need to generate in order to raise and sustain equity capital. The two costs are then weighted by the percentage of debt and equity to develop the total regulatory cost of capital for each year. RDC currently has investments in other railways, including the Iowa Interstate Railroad in the U.S., and the capital RDC invested in Guatemala could readily have been invested in the Iowa Interstate and been subject to the STB regulated cost of capital rates. Indeed, because the Iowa Interstate is a Class II railroad, its cost of capital would be somewhat higher than that of Class I Railroads, making this valuation conservative. Using the U.S. Class I Railroad regulatory cost of capital rates for the relevant time periods, RDC's lost investment is valued at is US$30,319,825 adjusted through the end of 2006.

64. A minimum approach would simply be to return to RDC the purchasing value of the money it invested in FVG. In this approach, the dollars invested are brought up to their 2006 constant value using the Consumer Price Index for Guatemala as published by the Bank of Guatemala. This would yield a value of US$24,249,943 adjusted through the end of 2006.

[18] Class I Railroads have annual revenues of more than US$346.7 million. Class II Railroads have revenues of between US$27.8 million and US$346.7 million. Class III Railroads have annual revenues below US$27.8 million.

65. In addition, as discussed above and shown on Table 12, RDC invested an additional US$1,033,823 in FVG in 2007 to cover termination and wind-down costs. This amount should be added to each of the lost investment totals discussed above in paragraphs 62, 63 and 64.

I. How Much Total Damage Did RDC/FVG Suffer as a Result of the Declaration of Lesivo?

66. As Table 11 and Table 12 show, the Declaration of Lesivo caused significant monetary damages to RDC and FVG. Regarding lost profits, because RDC and FVG were never committed or obligated to re-opening the Pacific operation unless favorable third-party financing was provided (and it was not), it is reasonable and proper to use Scenario One as the basis for measuring the fair market value of RDC/FVG's lost profit damages as of the Declaration of Lesivo. Using a ten percent discount rate yields estimated lost profit damages with a net present value of **US$36,161,127** as of the end of 2006 (see paragraph 55 above).

67. In addition, the Declaration of Lesivo caused RDC to lose the value of its investment in FVG. Table 12 shows the flow of RDC's investment into FVG from 1998 through 2007. The total amount of investment in nominal dollars was US$16,421,010, but, as discussed in paragraphs 60 to 65 above, this does not reflect the real value of this investment as of the Declaration of Lesivo.

68. As Table 12 shows, conversion of this amount into a valid measure as of the end of 2006 can be done in several ways, which yield a range of values. Using the regulatory cost of capital as applied to Class I U.S. Railroads yields a value of US$30,319,825 as of the end of 2006. A strong argument could be made for this approach since this was the investment opportunity that RDC was forgoing when investing in Guatemala. Applying a constant 10 percent cost of capital, consistent with the rate used in the loss of business value analysis, yields a value of US$26,840,908 as of the end of 2006. Merely updating the nominal value to reflect the Consumer Price Index in Guatemala yields a minimum estimated value of US$24,249,943 as of the end of 2006. Based on the relative convergence of these values under these three methodologies, it is my opinion that the use of a constant cost of capital rate of ten percent is reasonable. This yields a lost investment value of US$26,840,908 million as of the end of 2006. To this amount should be added the investment RDC made in 2007 for business termination and wind-down to yield a total loss of investment value of **US$27,874,732**.

69. For these reasons, I estimate the total damages to RDC and FVG to be **US$64,035,858 before pre-award interest**. Pre-award interest on the total should commence at the beginning of 2007 for the basic loss of business and loss of investment claims (US$63,002,035) and should commence at the beginning of 2008 for the US$1,033,823 invested by RDC in 2007 for FVG's business termination and wind-down costs.

J. There was no Pecuniary Lesion to the State

70. In my opinion, as of the Declaration of Lesivo of August 25, 2006, Guatemala had not suffered any demonstrable or measureable economic or financial harm ("pecuniary *lesion*," or" injury to the State") from the FVG Usufruct. Indeed, to the contrary, Guatemala actually received **substantial benefits** from the program. Had FVG not been awarded the Usufruct, rail operations in Guatemala almost certainly would never have resumed and the Government would have failed at its objective to keep a rail transport capability in operation.

Prior to having to shut down its operations due to the Declaration of Lesivo, FVG had carried over 756,000 tons of freight that generated about 88 million Quetzals (US$11 million) in freight revenue (see Table 10). It is reasonable to assume that Guatemalan rail freight rates would be at least 30 percent lower than would be paid to trucks to ship the same cargo. This would amount to a saving to the country's shippers of at least 37.7 million Quetzals (US$4.7 million) through the present – a clear justification for the Government's original policy of trying to rescue the rail operation. The Government's fundamental objective – keeping rail as a transport option for import and export traffic – was well founded from an economic and financial standpoint and it should have continued in force.

71. In addition, prior to the Declaration of Lesivo, the Government had accrued over 10 million Quetzals (US$1.25 million) in Canon payments that it would not otherwise have accrued. This income came at no expense to the Government.

72. If rail operations had not resumed, which undoubtedly would have been the case if FVG had not taken over the railway, FEGUA's rail facilities and equipment would have only had value for scrap. After concessioning, some of the equipment was returned to FEGUA where it may have been scrapped with the value presumably returned to the Treasury. The rail facilities and equipment that FVG used still remain, and the value is, if anything, higher than before as a result of maintenance and rehabilitation that the Government did not fund.

73. Specifically with respect to the rolling stock, FEGUA has accrued payments so far of over 728,000 Quetzals (US$91,000) through 2007 (Table 13) against a currently used fleet that would have a scrap value of less than 12,300,000 Quetzals (US$1.5 million), whereas the entire fleet was officially valued by FEGUA in Deed 158 at 470,000 Quetzals (US$58,750). The Government has also received about 2.9 million Quetzals (US$362,000) in payments for assets used in real estate leases. Given the benefits that use of the fleet and the non-rail assets generated for the Government, it is clear that neither FEGUA nor the Government was in any way financially or economically damaged by the payment terms of the Usufructs.

74. In addition, FVG demonstrated an outstanding record for preservation of the historic rail equipment of Guatemala – far better than that of FEGUA. The rail equipment that FVG kept in use is better maintained and protected than before. Some of the equipment now in disuse was preserved solely through FVG's efforts, and FVG received extensive recognition from the Government of Guatemala for its enthusiastic preservation efforts.

75. In summary, given Guatemala's clear decision to maintain the railway in operation – which appears to have been a wise one – the nation was not economically or financially harmed in any way by the Usufruct. Guatemala, instead, benefited more than fairly from the Usufruct before the Declaration of Lesivo, and it has been harmed as a result of the Declaration. Given these facts, I can only conclude that, in making its Declaration of Lesivo, the Government was not acting in the country's overall economic or financial interests. In fact, from my position as a railway development expert, I cannot understand any rational economic basis for the Government's actions. I can, therefore, only conclude that the Declaration of Lesivo was driven by factors outside the field of economics or finance.

K. The Declaration of Lesivo Destroyed FVG's Future

76. For a number of reasons, the Government's Declaration of Lesivo destroyed FVG's ability to operate the railway and achieve its business plan for the leasing and development of the non-Usufruct real estate assets. First, it is manifestly impossible to operate

a railway without rolling stock, i.e., locomotives and freight wagons. Upon the implementation of the Declaration, FVG would have had no rolling stock and, therefore, no ability to run trains. More important, the clear threat of shutdown posed by the Declaration of Lesivo closed the door on potential customers and investment partners. After the Government's intentions had been made clear, FVG could no longer attract new customers, retain existing customers or develop the railway real estate assets under its control.

77. Perhaps more important in revealing its intentions, the Government made no effort to correct any of the purported technical problems with the Rolling Stock Usufruct Contracts (Deeds 143 and 158) prior to the Declaration of Lesivo. Under normal circumstances, any alleged technical (and in this case insignificant) defects in these contracts presumably could and should have been resolved by negotiation or simple agreement, especially when, as in this case, it should have been in the obvious interest of both parties to correct any alleged defects. Failure of the Government to do so strongly suggests that the Government's underlying intent in issuing the Declaration of Lesivo was effectively to terminate FVG's rights under the Usufruct or to render those rights worthless.

78. In fact, the decision to issue the Declaration of Lesivo with respect only to the rolling stock fleet created a damaging contradiction. Rolling stock of 914mm gauge is very rare, and FVG could not operate the railway without the existing fleet of freight wagons and locomotives (which it had rehabilitated in good faith). At the same time, because FVG retained the original infrastructure concession, FEGUA (or any other potential operator) had no way to use the rolling stock that was supposed to be returned to FEGUA. While the Government may have thought it could avoid obvious expropriation charges by declaring Lesivo solely on rolling stock, the net result was actually worse than expropriation. As a result of the Declaration of Lesivo, FVG's business was rendered effectively worthless overnight, and rail service died.

79. The Government's actions in the Declaration of Lesivo also totally defeated the possibility of FVG obtaining any assistance from international or local financial institutions. No institution would lend money or credit to FVG with such a legal threat hanging over its head. No shipper would make long term investments in efficient handling facilities or enter into shipment contracts, and no development partner would make an investment in a real estate project in the face of overt hostility from the Government.

80. In sum, the Declaration of Lesivo demonstrated an implacable determination by the Government to breach the Usufruct Contracts and close the railway. As a result, FVG's losses began to multiply in the short run and promised to overwhelm any efforts to recover either future freight traffic or momentum in development of real estate. It was, therefore, a painful but necessary decision for FVG to cease operation of the railway in September of 2007.

Respectfully submitted,

Louis S. Thompson

June 1, 2009

Attachments: (1) List of sources reviewed; (2) Annex containing quotation from the Rolling Stock Usufruct; (3) Louis S. Thompson Résumé; (4) Tables 1-13; and, (5) Figures 1-3

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ANNEX:

Full Quotation From the Rolling Stock Usufruct.

The quote below states the Government's basis for the rolling stock usufruct. The source is Gobierno de la Republica de Guatemala, "Ferrocarriles de Guatemala 'FEGUA' Licitacion Publica Usufructo Oneroso Equipo Ferroviario, Noviembre de 1997. It will be called "November 1997 Licitacion." The pages of this document are not numbered, but the pages from which the quotations are taken appear to be numbers 40 and 41. The same quotation can be found in Annex 5.2 of the Licitacion of February 1, 1997 for the "Onerous Usufruct of Rail Transport in the Republic of Guatemala." (the document has no page numbers).

First passage, from page 40.

"El estado de Guatemala, propició el establecimiento del Sistema Ferroviario de Guatemala, desde hace más de cien (100) años mediante concesiones a empresas constructoras y/o operadoras que en el tiempo fueron adquiridas por la empresa "International Railroad of Central America" IRCA, que devolvió en diciembre de mil novecientos sesenta y ocho al Estado de Guatemala todos los bienes inmuebles concesionados y entregó el conjunto de bienes muebles de su propiedad en concepto de pago de las deudas contraídas con el mismo Estado de Guatemala como producto de la nacionalizacíon de los activos ferroviarios y no ferroviarios, el Estado ejerció pleno dominio y derecho sobre el sistema ferroviario de Guatemala y creó en mil novecientos sesenta y nueve (1969) para su administración y explotación a la Empresa Ferrocarriles de Guatemala FEGUA. A partir de su constitución, FEGUA ha prestado el servicio de transporte ferroviario y ha administrado los bienes muebles e inmuebles ferroviarios y no ferroviarios que conforman su patrimonio. El transporte ferroviario fue cada vez más deficiente, por razones del estado de obsolescencia y deterio del equipo y las instalaciones, así como por la insuficiente inversion realizada en la reconstrucción o modernización del Sistema, repercutiendo en pérdida continua de movimientos de carga y pasajeros con el consecuente deterio financiero de (FEGUA), hasta el punto que se tuvo que suspender totalmente el servicio ferroviario en marzo de mil novecientos noventa y seis (1996). El Gobierno de Guatemala se ha fijado el objetivo de restablecer el funcionamiento del Sistema Ferroviario porque es un objetivo de interés económico para las actividades productivas de la Nación, pero a la vez, ha decidido abandoner su function de operador ferroviario y todas las demás funciones que están concatenedas con la actividad de empresas transporte ferroviario."

Second passage, from pages 40 and 41,

"… que tiene como objectivo desarollar un proceso de desincorporatión, sin privilegios mediante el cual el Estado ejerza con eficiencia sus funciones básicas, separándose de las de tipo empresarial, industrial, agrícola y de servicios, con el objectivo de incrementar la solidez global de la economía y de la infraestructura productiva, el acceso a los servicios en un ambiente de competencia, ampliar la base de propietarios y optimizar el beneficio fiscal a través de la desincorporatión de las funciones esencialmente empressariales que actualmente están a cargo del Estado, dentro de las cuáles se encuentran las encomendadas a FEGUA…"

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• 1978-1986 ***Federal Railroad Administration, US DOT***:
Director, Northeast Corridor Improvement Project, restructured and managed the NECIP, a $2.5 billion, multi-year project upgrading rail service between Boston, New York City and Washington.
Associate Administrator for Intercity Services, managed the annual review of the Amtrak budget, and supervised high-speed rail studies, as well as continuing to manage NECIP.
Associate Administrator, Passenger and Freight Services, supervised NECIP, Amtrak budget, and all FRA assistance programs to freight railways.
Acting Associate Administrator for Policy, supervised policy development, and Conrail sale.
Acting Deputy Administrator, (4 months).
Administrator's Awards for Outstanding Performance (2) and for Excellence in Promoting Opportunities for Minority Businesses (1). Secretary's Award for Outstanding Performance. Presidential Award for Outstanding Performance.

• 1986 - 2003, ***The World Bank***.
As Railways Adviser, reviewed the Bank's entire railway lending activities. Worked in all Bank regions, with particular attention to Argentina, Brazil, Mexico, China, India and the CEE and CIS countries. Led the concessioning of railways in Argentina, Chile (with IFC team), Mexico, Bolivia, and Brazil, and advised in concessioning in Guatemala, Malawi, Kenya, Tanzania, Zambia, Egypt and Pakistan, among others. Advised in rail private sector involvement in Estonia, Poland, Romania, Panama and Mexico. Advised in public sector railway restructuring in China, Russia and India.

World Bank President's Award for Excellence for leading the concessioning of railways. Only two or three of these awards are made per year. Have spoken and published extensively on U.S. and international rail freight and passenger issues.
Chairman, TRB Committee reviewing R&D programs of the Federal Railroad Administration.

• 2003 to present **Principal, Thompson, Galenson and Associates**.
Consulting firm working with public and commercial clients on railway and transport issues in the U.S. and worldwide. Consulting assignments have included:

- Private client. Forecast of worldwide rail traffic, freight and passenger, for all countries of the world. This study developed an IEA worldwide energy use forecast through the year 2050 based on a number of scenarios.
- World Bank. Restructuring of the rail system in Russia, including potential projects in freight, intercity passenger and commuter rail services.
- World Bank. Study of rail restructuring issues in China, including regulation, system structure and role of the private sector.
- World Bank. Review of rail restructuring plans in India and Bangladesh.
- World Bank. Analysis of the British Railway privatization and lessons for the World Bank and its clients.
- European Conference of Ministers of Transport (ECMT). Study of rail structure and regulatory issues in Russia. A later report updated the status of reforms.
- ECMT: study of rail infrastructure access charges in the ECMT Member States.
- ECMT: study of the experience and prospects for franchising of rail systems in the EU.
- ECMT: study of the data needs for improved rail regulation.
- OECD: study of the need for rail freight infrastructure investment 2005 – 2030.
- Community of European Railways (CER). Chapter in book on rail restructuring issues worldwide as part of a book on rail restructuring in the EU countries.
- Private client. Analysis of options of Amtrak reform.
- Federal Railroad Administration (FRA): study of ownership options for the NEC.
- Estonia: Court expert in infrastructure access charge litigation.
- European Union: invited member of IMPRINT-NET railway experts advising the European Commission on railway infrastructure access issues.
- World Bank: member of expert team analyzing structure issues of the South
- African network industries.
- World Bank: revising, updating and reporting on the Bank's worldwide railway Database through 2005.
- World Bank: member of expert team advising Chilean Government on restructuring the railway system in Chile.
- World Bank: member of expert team advising Uruguayan Government on restructuring the railway system in Uruguay.
- World Bank: member of expert team advising Mexican Government on
- implementing suburban passenger rail systems in Mexico City.
- Member, Board of Directors of the Railroad Research Foundation, the research administration arm of the Association of American Railroads.
- Member, Peer Review Panel, California High Speed Rail Authority. The panel will review plans for the High Speed Rail project and provide comments and advice to the Governor and the Legislature.
- International Transport Forum (ITF): updates prior study of access charges in EU railways
- ITF: study of structure of the transport sector of South Africa and Turkey
- ITF: analysis of rail regulatory issues in China, India, the EU, Brazil and the U.S.

Table 1

Guatemalan Traffic and staff

Year	Tons (000)	Passengers (000)	Staff
1952	550	3,987	
1953	652	4,237	
1954	568	4,218	
1955	661	4,199	
1956	692	3,913	
1957	676	3,480	
1958	590	3,033	
1959	612	2,534	
1960	672	2,000	
1961	579	1,771	
1962	557	1,668	
1963	583	1,786	
1964	495	1,758	
1965	406	1,601	4,254
1966	434	1,647	
1967	414	1,438	
1968	323	1,061	
FEGUA INITIATED IN 1969			
1969	412	1,082	3,464
1970	415	1,285	
1971	357	1,309	
1972	353	1,486	
1973	463	1,116	
1974	525	1,663	
1975	524	1,571	
1976	704	386	
1977	778	562	
1978	712	790	
1979	na	na	
1980	678	1,058	
1981	595	333	
1982	587	427	
1983	497	981	
1984	397	1,040	
1985	504	586	1,982
1986	588	380	
1987	582	328	
1988	426	293	
1989	456	329	
1990	391	325	1,932
1991	371	279	2,160
1992	355	187	
1993	135	71	1,080
1994	146	20	460
1995	104		432
1996	11		540
1997	-	-	100

Sources:

National Statistics Office (passengers and freight 1952 to 1978)
FEGUA Annual Reports (passengers and freight 1980 to 1997)
CIDET, SA, "Estudio Basico para la Concesionalidad del
Transporte por Ferrocarril en Guatemala", pg 14, 23 (Staff 1990 and before)
Estudio Plan in February Licitacion (Staff 1994, 1995)
International Railway Journal, April 2001 (1991 Staff)
Share Issue Prospectus, section 3.2 (Staff 1996)

Table 2

Description of Phases:			
Phase	**Description**	**Km of line**	**Estimated completion date in Business Plan**
I	Restart operations between Puerto Santo Tomás and Guatemala City	317.6	end of 1997
II	Restart operations between Puerto Quetzal and Tecun Uman and between Santa Maria and Escuintla.	243.9	end of 1998
III	Connect Cementos Progreso directly to the network at MP 166	5.0	end of 1998
IV	Connect Guatemala City to Villa Canales	24.6	end of 1999
V	Repair the connection to El Salvador from Zacapa to Anguiatú	112.6	end of 2000
	Total to be rehabilitated	**698.74**	

Source: Envelope A, "Business Plan" dated May 15, 1997, section 3.0, OPERATING PLAN
Distances from "Bases de Licitacion de Ferrocarriles de Guatemala (FEGUA) y Ofertas Tecnicas y Economicas de Contratos de Usufructo Oneroso de Bienes de Utilidad Ferrociario y equipe Ferroviario Propriedad de FEGUA," Cuadro No. 1

Table 3

Tons and Revenue Projections by Phase

	Phase I		**Phase II**		**Phase III**		**Phase IV**		**Phase V**		**% Market Share in Business Plan**
TRAFFIC	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	20
Containers	160,000	14,400,000	160,000	14,400,000	160,000	14,400,000	240,000	17,600,000	290,000	20,100,000	80
Fuels	108,000	6,480,000	108,000	6,480,000	108,000	8,640,000	108,000	8,640,000	108,000	8,640,000	50
Scrap			75,000	1,125,000	75,000	1,125,000	75,000	1,125,000	75,000	1,125,000	50
Sugar			95,000	1,900,000	95,000	1,900,000	130,000	3,925,000	130,000	3,925,000	50
Coffee			25,000	1,800,000	25,000	1,800,000	90,000	10,380,000	90,000	10,380,000	50
Cement					55,000	2,200,000	180,000	7,825,000	180,000	7,825,000	50
Bananas	31,500	756,000	31,500	756,000	31,500	756,000	31,500	756,000	31,500	756,000	35
Wheat	15,000	1,200,000	15,000	1,200,000	15,000	1,200,000	90,000	4,200,000	90,000	4,200,000	50
TOTAL	314,500	22,836,000	509,500	27,661,000	564,500	32,021,000	944,500	54,451,000	994,500	56,951,000	

Source: Envelope A, "Business Plan" dated May 15, 1997, section 5.0, MARKETING PLAN

	Tons	Revenue
Addition for Phase II over Phase I	195,000	4,825,000
Addition for Phase IV over Phase III	380,000	22,430,000
Total Added Phases II and IV	575,000	27,255,000

Table 4
Projected Demand For FVG Over Time
(Revenue in Quetzals)

	Phase I		Phase II		Phase III		Phase IV		Phase V		Total	
Year	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**	**Tons**	**Revenue**
1997											-	-
1998	314,500	22,836,000									314,500	22,836,000
1999	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000					564,500	32,021,000
2000	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000			944,500	54,451,000
2001	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2002	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2003	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2004	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2005	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2006	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2007	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2008	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2009	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2010	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2011	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2012	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2013	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2014	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2015	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2016	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2017	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2018	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2019	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2020	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2021	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000
2022	314,500	22,836,000	195,000	4,825,000	55,000	4,360,000	380,000	22,430,000	50,000	2,500,000	994,500	56,951,000

Source: Envelope A, "Business Plan" dated May 15, 1997, section 5.0, MARKETING PLAN

Table 5

Tons and Revenue Projections by Phase

TRAFFIC	Phase I Tons	Phase I Revenue	Phase II Tons	Phase II Revenue	Phase III Tons	Phase III Revenue	Phase IV Tons	Phase IV Revenue	Phase V Tons	Phase V Revenue	Length of Haul Govt	Length of Haul FVG
Containers	160,000	14,400,000	160,000	14,400,000	160,000	14,400,000	240,000	17,600,000	290,000	20,100,000	150	150
Fuels	108,000	6,480,000	108,000	6,480,000	108,000	8,640,000	108,000	8,640,000	108,000	8,640,000	150	150
Scrap			75,000	1,125,000	75,000	1,125,000	75,000	1,125,000	75,000	1,125,000	70	70
Sugar			95,000	1,900,000	95,000	1,900,000	130,000	3,925,000	130,000	3,925,000	60	60
Coffee			25,000	1,800,000	25,000	1,800,000	90,000	10,380,000	90,000	10,380,000	350	350
Cement					55,000	2,200,000	180,000	7,825,000	180,000	7,825,000	50	100
Bananas	31,500	756,000	31,500	756,000	31,500	756,000	31,500	756,000	31,500	756,000	100	100
Wheat	15,000	1,200,000	15,000	1,200,000	15,000	1,200,000	90,000	4,200,000	90,000	4,200,000	100	100
TOTAL	314,500	22,836,000	509,500	27,661,000	564,500	32,021,000	944,500	54,451,000	994,500	56,951,000		

TRAFFIC	I Ton-Km	I Rev/ton-Km	II Ton-Km	II Rev/ton-Km	III Ton-Km	III Rev/ton-Km	IV Ton-Km	IV Rev/ton-Km	V Ton-Km	V Rev/ton-Km Quetzals	V Rev/ton-Km US $
Containers	24,000,000	0.6000	24,000,000	0.6000	24,000,000	0.6000	36,000,000	0.4889	43,500,000	0.4621	0.0604
Fuels	16,200,000	0.4000	16,200,000	0.4000	16,200,000	0.5333	16,200,000	0.5333	16,200,000	0.5333	0.0698
Scrap	-		5,250,000	0.2143	5,250,000	0.2143	5,250,000	0.2143	5,250,000	0.2143	0.0280
Sugar	-		5,700,000	0.3333	5,700,000	0.3333	7,800,000	0.5032	7,800,000	0.5032	0.0658
Coffee	-		8,750,000	0.2057	8,750,000	0.2057	31,500,000	0.3295	31,500,000	0.3295	0.0431
Cement	-		-		2,750,000	0.8000	9,000,000	0.8694	9,000,000	0.8694	0.1137
Bananas	3,150,000	0.2400	3,150,000	0.2400	3,150,000	0.2400	3,150,000	0.2400	3,150,000	0.2400	0.0314
Wheat	1,500,000	0.8000	1,500,000	0.8000	1,500,000	0.8000	9,000,000	0.4667	9,000,000	0.4667	0.0610
TOTAL	44,850,000	0.5092	64,550,000	0.4285	67,300,000	0.4758	117,900,000	0.4618	125,400,000	0.4542	0.0594

Source: Table 3 and "Bases de Licitacion de Ferrocarriles de Guatemala (FEGUA) y Ofertas Tecnicas y Economicas de Contratos de Usufructo Oneroso de Bienes de Utilidad Ferroviario y Equipe Ferroviario Propriedad de FEGUA, Anexo 5.1, Situacion Actual del Sistema Ferroviario de Guatemala"

Table 6

2005 Revenue/Ton-Km (US$/Ton-Km) for various railways

		Avg. Frt. Tariff	Average length of haul (Km)	2005 Ton-Km (000,000)	CPD Growth % From First Yr of Concession to 2005
Argentina	FEPSA	0.022	431	1,547	7.1
	Ferrosur Roca	0.018	382	1,951	6.0
	Nuevo Central Argentino	0.016	460	4,156	13.1
	Buenos Aires al Pacifico	0.013	840	2,972	3.4
	Mesopotamico	0.023	597	829	2.7
	Belgrano	0.021	1,046	808	0.7
Mexico	TFM	0.026	657	28,025	7.5
	Ferromex	0.022	975	35,045	6.6
	Chiapas-Mayab	0.034	500	1,472	7.3
Brazil	FCA	0.036	388	10,700	9.2
	Novoeste	0.026	371	1,300	-1.7
	Nordeste	0.026	571	800	3.2
	ALL	0.025	710	15,400	9.1
	Tereza Christina	0.068	83	200	2.7
Peru	FCCA	0.046	212	337	4.0
Guatemala*	**FVG**	**0.059**	**126**	**125 (est)**	**14.2**
					1996 to 2005 Freight Cpd Growth Rate %
Smaller EU Railways (2004 data)	Belgium	0.048	126	8,130	1.1
	Greece	0.049	199	613	7.2
	Ireland	0.156	186	303	(6.6)
	Switzerland	0.085	161	8,571	0.6
US	All Class I	0.018	956	2,478,914	2.6

* Growth comparison uses tonnage, as ton-km not available

Note: FVG based on 2004 and 2005 traffic estimates in the Business Plan

Source: World Bank privatized concessions data base and railways data base

Table 7

Railway Comparisons

		Km of Line	Employees	2005 Ton-Km (000,000)	Empl/Km of Line	Ton-Km/Km of Line	Ton-Km/ Employee
Argentina	FEPSA	2,560	897	1,547	0.350	0.604	1.725
	Ferrosur Roca	2,650	799	1,951	0.302	0.736	2.442
	Nuevo Central Argentino	3,524	1,316	4,156	0.373	1.179	3.158
	Buenos Aires al Pacifico*	3,000	1,325	2,972	0.442	0.991	2.243
	Mesopotamico*	2,100	500	829	0.238	0.395	1.658
	Belgrano	2,400	1,470	808	0.613	0.337	0.550
Mexico	TFM	4,029	3,393	28,025	0.842	6.956	8.260
	Ferromex	8,106	6,105	35,045	0.753	4.323	5.740
	Chiapas-Mayab	1,500	463	979	0.309	0.653	2.114
Brazil	FCA	8,093	4,799	10,700	0.593	1.322	2.230
	Novoeste	1,942	1,199	1,300	0.617	0.669	1.084
	Nordeste	4,238	1,989	800	0.469	0.189	0.402
	ALL*	7,225	2,371	15,400	0.328	2.131	6.495
	Tereza Christina	164	236	200	1.439	1.220	0.847
Peru	FCCA*	591	94	337	0.159	0.570	3.585
Guatemala	**FVG (Phase I only)**	**325**	**77**	**45**	**0.237**	**0.138**	**0.582**
Smaller EU Railways (2004 data)							
	Belgium	3,542	37,200	8,130	10.503	2.295	0.465
	Greece	2,576	8,100	613	3.144	0.238	0.305
	Ireland	1,919	5,500	303	2.866	0.158	0.379
	Switzerland	3,011	25,900	8,571	8.602	2.847	0.865
US	All Class I	153,787	162,438	2,478,914	1.056	16.119	15.261

* Indicates an RDC investment and management support role.

Note: FVG based on 2004 and 2005 traffic estimates in the Business Plan
Note: The EU railway productivities include passenger traffic as well
Source: World Bank privatized concessions data base and railways data base

Table 8

Estimated Value of the Contract Obligations of FEGUA to the Trust Fund

Uses 10 Percent Cost of Capital

	2000	2001	2002	2003	2004	2005	2006
Yearly Total from Cobigua (Quetzals)	1,397,652	1,561,881	1,942,819	2,158,535	2,054,336	2,327,347	2,580,652
Exchange Rate	7.763	7.854	7.819	7.937	7.948	7.635	7.602
Cobigua Total (US$)	180,040	198,864	248,474	271,959	258,472	304,826	339,470
Estimated from other sources (30%) (Quetzals)	419,296	468,564	582,846	647,561	616,301	698,204	774,196
Estimated from other sources (US$)	54,012	59,659	74,542	81,588	77,542	91,448	101,841
Total for year (US$)	234,052	258,524	323,016	353,546	336,014	396,274	441,311
Cumulative total without interest	234,052	492,576	815,592	1,169,138	1,505,152	1,901,426	2,342,737
Cumulative totals as of end 2006 (US$)							
Years before present	6	5	4	3	2	1	0
End of 2006 value	414,638	416,355	472,928	470,570	406,577	435,901	441,311
Cumulative total as of the end 2006 with 10% cost of capital	414,638	830,993	1,303,921	1,774,491	2,181,068	2,616,969	**3,058,280**

Source: FVG Estimate.

Table 9

FVG's Safety and Accident Record

	Total Accidents	Derailments	Days of work lost to Injuries
1999	0	0	0
2000	2	124	62
2001	14	274	341
2002	6	210	207
2003	5	200	168
2004	3	425	8
2005	1	295	3
2006	2	325	19
2007*	4	178	56
Total	37	2031	864

Sources: 2002 to 2007. "Annual Report 2007",
1999 to 2001 from FVG
FVG Derailment reports
* Operations ceased on September 14, 2007

Table 10

FVG's Traffic

	Freight Tons	Railway Revenue	Revenue from Other Activities	Total FVG Revenues
		Quetzals	Quetzals	Quetzals
1998	0	0	0	0
1999	0	1,073,449	619,005	1,692,454
2000	62,580	6,085,123	2,990,988	9,076,111
2001	94,603	13,279,842	2,560,230	15,840,072
2002	100,391	12,472,754	1,672,883	14,145,637
2003	118,860	13,707,003	1,723,176	15,430,179
2004	122,308	17,814,638	1,213,281	19,027,919
2005	125,466	11,511,652	3,905,191	15,416,843
2006	92,566	7,177,374	3,663,629	10,841,003
2007*	39,604	4,557,814	4,856,661	9,414,475
Total	756,378	87,679,649	23,205,044	110,884,693

* Operations ceased on Sept 14, 2007

Sources: Annual Reports, 1998 through 2007

Table 11

FVG Estimated Lost Profits and Other Measures of Harm Caused by The Declaration of Lesivo

Discount Rate of Ten Percent

(US$ millions)

All values are as of end of 2006

Scenario One (Real Estate + Atlantic Operations)		
Value to Government in Income Taxes		**11,657,423**
Value of Fees Paid to Trust Fund		**14,948,455**
FVG Net After-tax Income	34,972,270	
FVG Depreciation (added back)	1,188,857	
Net Value to FVG		**36,161,127**
TOTAL Value		**62,767,005**

Scenario Two (Real Estate + Atlantic + Pacific Operations)		
Value to Government in Income Taxes		**7,068,591**
Value of Fees Paid to Trust Fund		**32,861,293**
FVG Net After-tax Income	19,315,905	
FVG Depreciation (added back)	16,204,719	
Net Value to FVG		**35,520,624**
TOTAL Value		**75,450,508**

Other Relevant Measures from Scenario One		
Value of transportation savings to Guatemala from having railroad service**		**30,000,000**

Other Relevant Measures from Scenario Two		
Value to FVG if long term interest is 5% rather than 10%*		**9,000,000**
Value of transportation savings to Guatemala from having railroad service**		**107,100,000**

Road Maintenance Savings from Rail:* **		
Atlantic		**3,700,000**
Pacific		**13,300,000**
Total		**17,000,000**

Minimum loss to Guatemala from Declaration of Lesivo as of 31 Dec 2006		
Scenario One		**60,239,000**
Scenario Two		**160,265,000**

* Assumes that Government would loan to FVG at World Bank terms

** Assumes that rail rates are 70% of truck rates

*** Highway maintenance at US$.05/truck-Km

Table 12

Calculation of Adjusted Value of RDC Lost Investment

	Actual RDC Investment Flows Into FVG									
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Net Investment in Quetzals*	12,756,798	48,174,511	10,702,727	14,236,115	8,860,584	3,257,912	2,340,291	5,956,879	7,963,481	7,936,662
Conversion rate	6.388	7.374	7.763	7.854	7.819	7.937	7.948	7.635	7.602	7.677
Net Investment in US Dollars in the year	1,996,994	6,533,023	1,378,684	1,812,594	1,133,212	410,471	294,450	780,207	1,047,551	1,033,823

* This is the amount shown as "Efectivo neto obtenido de las actividades de financiamiento" In the cash flow statement of each year from the FVG Annual Reports

Total Undiscounted Value Through End of 2006	15,387,187
Termination Costs in 2007	1,033,823
Total Loss of Value in Nominal Dollars (Unadjusted)	**16,421,010**

	Adjusted Value Calculation Based on Constant Discount Rate of 10 percent									
Years before 2007	8	7	6	5	4	3	2	1	0	0
Multiplier for NPV (10 percent discount rate)	2.14	1.95	1.77	1.61	1.46	1.33	1.21	1.10	1.00	1.00
Value in 2007 dollars of FVG Annual Report	4,280,734	12,731,013	2,442,424	2,919,201	1,659,136	546,338	356,285	858,227	1,047,551	1,033,823

Total Accumulated Value through End of 2006	26,840,908
Termination Costs in 2007	1,033,823
Total Loss of Investment Value Using 10 Percent Discount Rate	**27,874,732**

	Adjusted Value Calculation Based on Regulatory Cost of Capital for U.S. Class I Railroads								
Regulatory Cost of Capital (%)**	10.70	10.80	11.00	10.22	9.80	9.40	10.10	12.20	9.94
Value	2,210,672	9,688,014	12,284,036	15,537,305	18,304,228	20,473,881	22,865,933	26,530,969	30,319,825

** Source: Association of American Railroads, "Railroad Facts, 2008 Edition," page 18

Total Accumulated Value through End of 2006	30,319,825
Termination Costs in 2007	1,033,823
Total Loss of Investment Value Using Regulatory Cost of Capital	**31,353,648**

	Adjusted Value Calculation Based on CPI Inflation Rates Taken from Banco de Guatemala								
Inflation Rate (%) (CPI)***	7.48	4.92	5.08	8.91	6.33	5.85	9.23	8.57	5.79
	2,146,369	9,106,418	11,017,746	13,973,523	16,062,992	17,437,161	19,368,239	21,875,167	24,249,943

***Source: http://www.banguat.gob.gt/inc/ver.asp?id=/en/pim/in.pim01&e=67371

Total Accumulated Value through End of 2006	24,249,943
Termination Costs in 2007	1,033,823
Total Loss of Investment Value Using Guatemala CPI	**25,283,767**

Table 13

FVG Payments from Freight and Non-freight Revenues (Quetzals)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total	Of which actually paid	Accrued but not paid
From freight revenues for use of track and other facilities. Contract 402	53,673	306,224	665,646	623,571	1,104,277	1,781,464	1,150,538	717,737	*455,781*	-	6,858,911	6,403,130	455,781
From freight revenues for use of rolling stock. Contract 143	-		108,106	113,903	115,674	144,210	103,210	86,912	*56,739*	-	728,754	672,015	56,739
To Trust fund from non-freight revenues for use of track and other facilities. Contract 820	61,900	298,770	256,023	191,488	172,318	121,348	390,519	*386,363*	*485,666*	*539,767*	2,904,162	1,191,847	1,712,315
Total payments on Contracts 402, 143 and 820	115,573	656,096	1,029,775	928,962	1,392,269	2,047,022	1,644,267	1,191,012	998,186	539,767	10,491,827	8,266,992	2,224,835
IVA tax to Government	11,557	65,610	123,573	111,475	167,072	245,643	197,312	142,921	119,782	64,772	1,249,718	735,730	513,988
Total payments by FVG	127,130	721,706	1,153,348	1,040,437	1,559,341	2,292,665	1,841,579	1,333,933	1,117,968	604,539	11,741,545	9,002,722	2,738,823
Total payments for BOTH infrastructure and rolling stock from freight revenues only	53,673	306,224	773,752	737,474	1,219,951	1,925,674	1,253,748	804,649	512,520	-	7,587,665	7,075,145	512,520
IVA tax to Government	5,367	30,622	92,850	88,497	146,394	231,081	150,450	96,558	61,502	-	903,322	841,819	61,502
Total payments by FVG from freight revenues only	59,040	336,846	866,602	825,971	1,366,345	2,156,755	1,404,198	901,207	574,022	-	8,490,987	7,916,964	574,022

Numbers in *italics* indicate payments accrued but not made. In addition, of the 2005 obligation to contract 820, Q90,000 were paid, Q300,519 were accrued but not paid.

Sources:
FVG Annual Reports, 1998 to 2007 (used for Lines 6 and 7)
Lines 4 and 5 provided by FVG
Lines 4 and 5 in column L estimated

Figure 1

Railway Traffic In Guatemala: 1952 to 1997

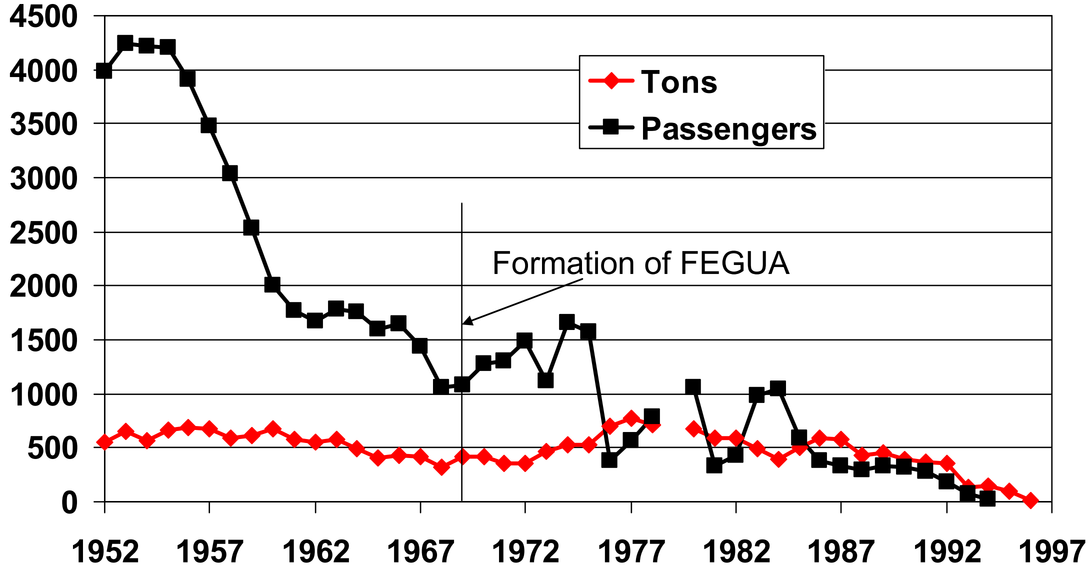

Figure 2

FVG Business Plan Phases

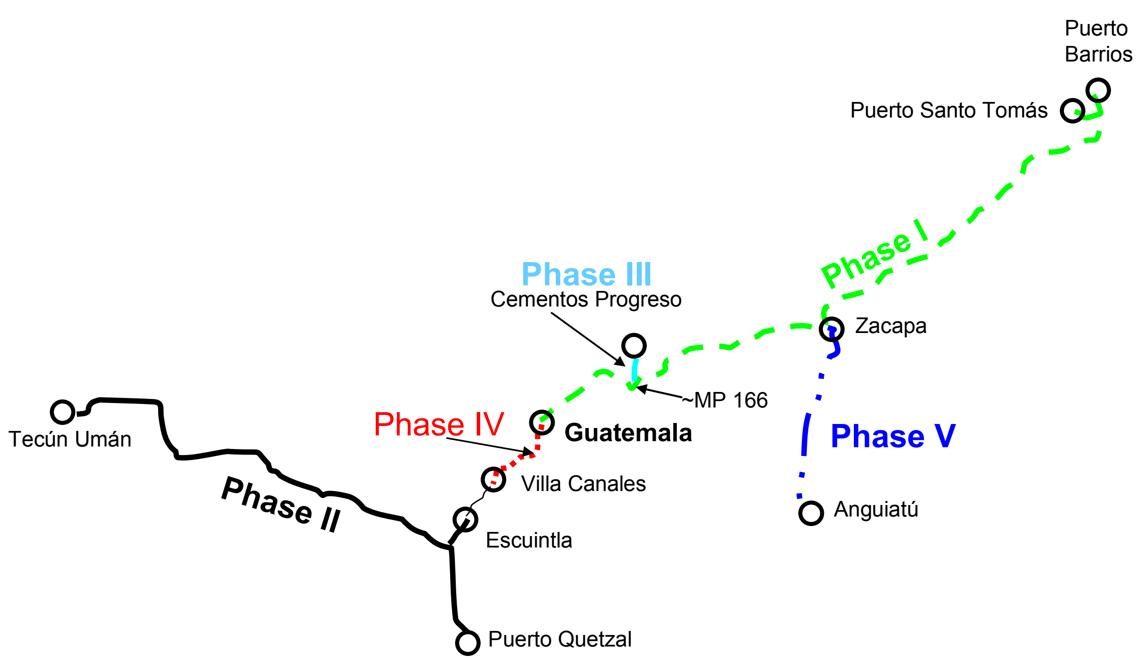

Figure 3

FVG MODEL SCENARIOS