

INVESTMENT ISSUES AND ANALYSIS IN CONCESSIONED RAILWAYS: EXPERIENCE IN THE ARGENTINE FREIGHT CONCESSIONS¹

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Before turning to the subject of this article – issues of investment decisions in concessioned railways in a developing country – I want to repeat the caveats from prior years' issues of Rail Business International about the Railway Database tables attached to this article. Since 1987, the World Bank has collected and reported data about railways, both developing and developed. The objective of this database is to give the railway observer a place to start in putting railway issues into context. Comparisons among railways can suggest areas in which a railway or railways perform well, and those in which improvement might be possible. Comparisons over time (since 1980) give a sense of how a railway has changed, for the better or otherwise.

The reader is cautioned, however, that the numbers must be used with appropriate care. Some railways change reported numbers from one year to the next for no clearly explained reason. Authoritative international sources of data sometimes do the same. Differences in definition exist (e.g. main line locomotives) or accounting practice (especially the treatment of depreciation) can heavily impact on reported performance. Any quantity involving currency values is inherently suspect because of the difficulty of correcting for inflation and conversion into common currency. Probably not least, database managers (and data suppliers) make errors of transcription and interpretation. The database is meant to be indicative; but numbers only supplement, never replace, detailed diagnosis.

The article also marks the first publication of a new database covering the performance of the newly private railway operations in a number of countries. The decade of the 1990s saw a revolution in rail management in much of the world, with a much heavier reliance on the private sector to provide rail services (with or without privatization of the infrastructure or other assets). For example, at the beginning of the decade, all major railways in Latin America were under public management: at the end of the decade, **none** were. The new database aims to report on the progress of these new operators. For this database, I want to acknowledge the generous contribution of the Public-Private Infrastructure Advisory Facility (PPIAF) which provided the grant funding to collect and establish the database. As with the broader railway database, I hope that the Private Railway Operations Database will acquire more railways, and more years of experience, in the years to come.

An article in last year's Rail Business International² discussed the differences in approach to investment planning and management in private versus public railways, concluding

¹ Opinions expressed in this article are those of the author and should not be attributed to the World Bank, its members or its Directors.

² [Rail Business International, 2000]

that private investors place much higher demands on investment performance than do public managers. This article examines the challenge of investment analysis and management in Argentina, the country with the longest experience with private freight rail concessions and where some of the problems as well as opportunities have begun to emerge.

The long period of state ownership and operation of Argentine Railways (Ferrocarriles Argentinos, or FA) was a failure, both for the railway and for Argentina. Except for a small up-turn in rail traffic (and grain production) in the early 1980s, state ownership saw almost continuous decline in rail traffic and finances. By the end of the 1980s, FA had become the largest single drain on the state treasury, losing between US\$800 million and US\$1 billion annually (around 0.8 percent of GDP) on its freight, intercity passenger and suburban passenger services. The Government concluded that either more dramatic actions had to be taken or FA should be closed.

In response, the Government broke FA into three components, freight, intercity passengers and suburban passengers (including the Buenos Aires Metro). Four broad gauge concessions (Nuevo Central Argentino, Buenos Aires al Pacifico, Ferrosur Roca and Ferroexpreso Pampeano) and one standard gauge (Ferrocarril Mesopotamico General Urquiza) were transferred between 1991 and 1993.³ [Figure A] Intercity passenger services were terminated at the national level, but several provinces chose to continue to operate these services on their own responsibility. Suburban passenger services and the Subt  were concessioned to private operators. This paper concerns only the concessioning and subsequent operation of the freight services: suburban services and the Metro are another (equally interesting) story.

Four aspects of the freight concessioning deserve specific mention from the investor's point of view. First, the Argentine Government did not have the advantage of learning from the experience of others, and the concessioning approach was necessarily based on a philosophy of getting the job done with mistakes fixed later. Second, because of the bidding uncertainties, the concessioning led to considerable subsequent negotiation as details and conflicts emerged, exposing both government and concessionaires to an unusual degree of bidding risk. Third, rather than depending on a fully quantitative, maximum bid price approach, the Government attempted to combine a number of factors into the bid evaluation through use of a points formula including: bidder's experience, personnel and business plan (up to 23 points for best offer); basic investment plan amount and quality (33 points for highest offer); additional investments proposed (5 points for highest offer); annual usage fee ("Canon") paid by the freight concessionaire for use of track and equipment (10 points for highest offer); toll ("peaje") to be charged to suburban passenger operators using freight tracks (5 points for lowest charge); number of FA employees to be hired (15 points for highest offer); and, "Argentine presence" (9 points). Finally, the concessions committed local governments to pay for passenger

³ With the exception of the meter gauge Belgrano railway which did not generate acceptable offers from concessionaires and thus remained in Government hands. The Belgrano was eventually transferred to the control of the main railway labor union, but received massive Government capital support during the mid 1990s and continues to receive operating assistance though it was nominally concessioned in 2000.

service track access even though local governments were not part of the concession agreement.

With the benefit of hindsight, it is clear that the bid evaluation formula had serious problems: it was partly judgmental (the bidders' experience and Argentine presence); factors were in direct conflict (employment, access prices and canon); and, the high emphasis on investments (38 percent of the award formula) encouraged overly detailed and highly optimistic bidding.

In the event, rail freight concessioning in Argentina has achieved far more than its early supporters dared to hope. Traffic has nearly doubled [Figure B], labor productivity has quadrupled [Figure C], a more than P\$200⁴ million annual deficit in freight operations alone was erased, and rail tariffs (P\$/ton-km) have fallen by about 35 percent in real terms. Major shippers confirm that service is far better than in the days of FA. Moreover, investments by concessionaires of about P\$290 million have been matched by about P\$244 investment from shippers and system users.

Is this success; or, at least, as successful as it might have been? From the private investor's point of view, the freight concessions had problems from the beginning. Due to the traffic and maintenance losses suffered during the delays between award and takeover, the concessionaires received businesses that were quite different from those they had bid for. There were a number of natural disasters, especially flooding, which affected demand and operations. The access fees from provincial passenger operators were essentially never paid, though the proposal for the access fees constituted 5 percent of the award formula. [Figure D] summarizes the performance of the concessions from several angles: revenues generated (P\$), traffic carried (Ton-km), Canon (P\$), peajes (P\$), and investment experience (P\$).

Figure D tells a number of important stories. Traffic (Ton-Km) was over 80 percent of expectations⁵ – not a disastrous outcome under the circumstances. But, revenues were only 59 percent of forecast, indicating that freight tariffs were lower than hoped as a result of competition (not a bad result for Argentina, but not so good for those whose personal money was on the line). In addition, peaje amounts fell short of those expected by P\$35.4 million. As a result, concessionaires reduced their canon payments by P\$30.6 million (actually less than the shortfall in peajes owed). More significantly, the concessionaires reduced their investment levels from the promised P\$737.8 million to P\$289.8 million, only 40 percent of the expected level. What does this tell us about the behavior of private investors in a real-world situation?

Clearly the first lesson is that the investment expectations and commitments were unrealistic. The bidding formula greatly encouraged optimistic forecasts of total investments and the bidders obliged: it is not clear whether the bidders (or even the evaluators) actually believed the forecasts, but they were duly measured in the outcome. Moreover, the bidding analysis required highly specific investment plans, with details forecast by year and by particular purpose and location. Whether this kind of planning

⁴ The Argentine Peso (P\$) has a value of one US dollar.

⁵ In order to protect confidentiality of individual concessions, only the sum of all concessions will be shown.

could (or should) have been attempted in an unstable and unpredictable economic environment with no Government intervention expected is certainly an open question.

The second conclusion is that the plans, however well laid, did not pan out. Because of extended negotiations and natural disasters, the concessionaires did not receive what they had bid for. With traffic below projections (no single concessionaire generated more than 86 percent of forecast) and with revenues well below projections (highest concessionaire earned 73 percent of forecast revenue), no rational investment manager would have been willing or able to meet the original forecasts in detail, nor would it have served any particular purpose for them to do so. In this case, did the private approach lead to under investment?

While valid concern has been expressed about the inability of the concessionaires to meet their investment commitments, this performance should be put into perspective. The concessions have actually allocated about 28 percent of their revenues to infrastructure investment, a level well above the US railroad practice over the past 20 years of allocating about 15 percent of revenues to infrastructure investment. In fact, over the past 20 years, US railroads have spent about 16 percent of their gross revenues each year for track maintenance and an additional 5 percent of their gross revenues on other investment outlays. The total of 21 percent for maintenance and investment (and the two categories can be hard to distinguish) is significantly below the 28 percent for investment alone in the Argentine concessions. It has not been possible to obtain spending on infrastructure maintenance in Argentina, but the total of investment and maintenance in Argentina must be well above US practice – and the US system carries far more traffic than Argentina.

Today the concessionaires are hindered in their ability to plan and invest for the future by concession agreements that are clearly infeasible for any of the parties to live up to, but which have not been successfully renegotiated. And, because the investment commitments have not been met, all of the concessions are technically in default though, to be fair, these are not the only conditions of default that exist on both sides.

There is ample evidence of the difficulties presented by rigid investment requirements that have not been or cannot be modified in light of changing circumstances. Almost all traffic handled by the Argentine railroad system today is subject to intense truck competition. No shippers feel themselves to be “captive” to the railroad. All of them have transportation alternatives to rail that they can and do use if rail service deteriorates or becomes too costly. There do not appear to be any lines in any of the concessions on which the concessionaires are earning profits exceeding their cost of capital which would permit them to cross-subsidize other lines. Truck competition will immediately compete away any excess profits.

The major problems with the investment plans from a private sector point of view are the rigidity of location-specific commitments, the inability to adjust investment projects with respect to market and traffic changes, the lack of year-to-year flexibility to adjust to changes in business levels, and the inability to abandon track (and related investment commitments) which no longer has any transport rationale. Fixing this problem, which is

the base of the non-compliance issue, will require renegotiation of a number of parts of the concession agreements, making total investment targets more realistic (perhaps by making them indexed to revenues) and more flexible year to year and by purpose and location. If these changes can be made, there is every reason to believe that the concessions will continue to serve and survive.

Figure A

Freight Railways in Argentina

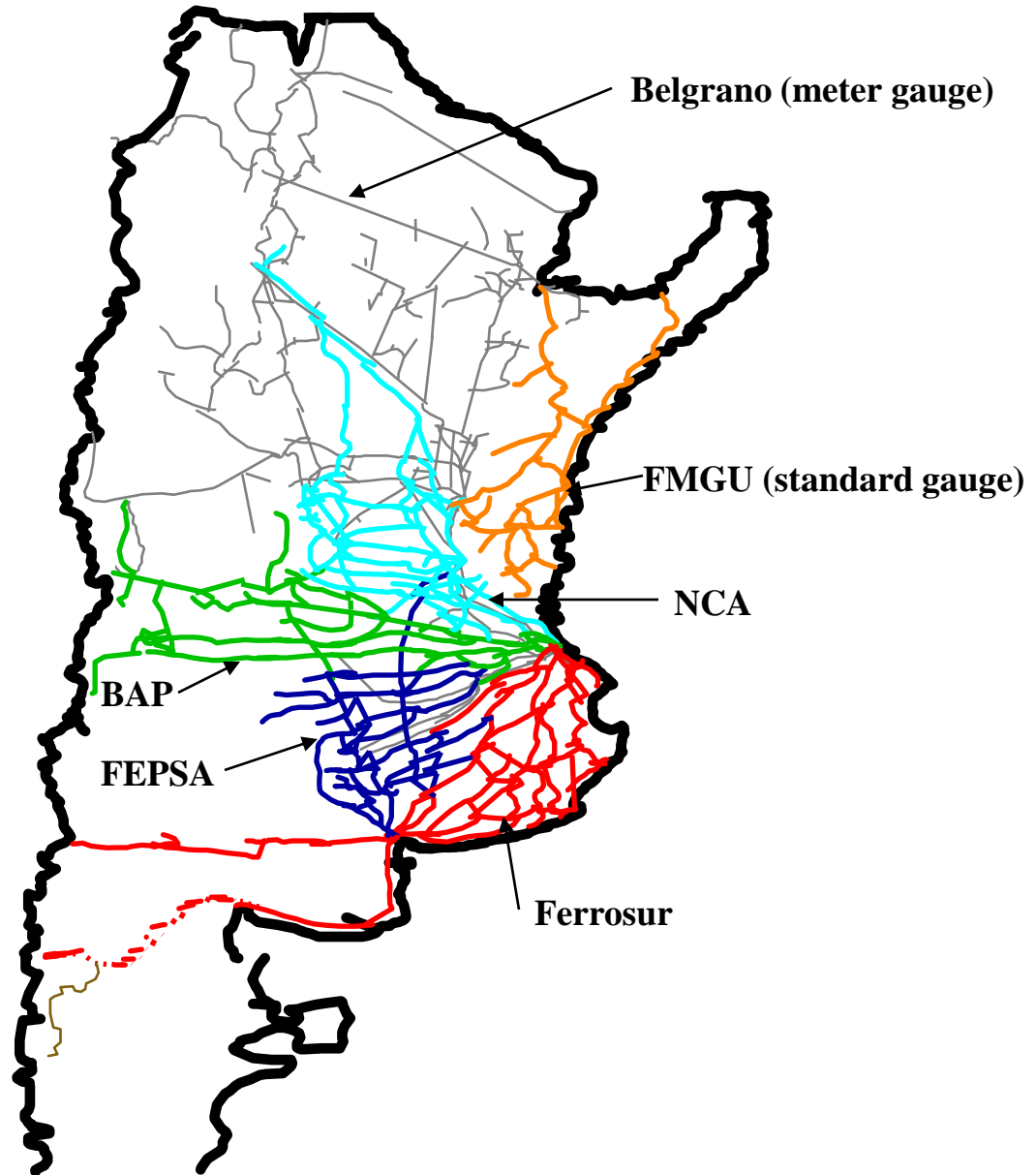


Figure B

Rail Freight in Argentina:

Index, 1992 = 100

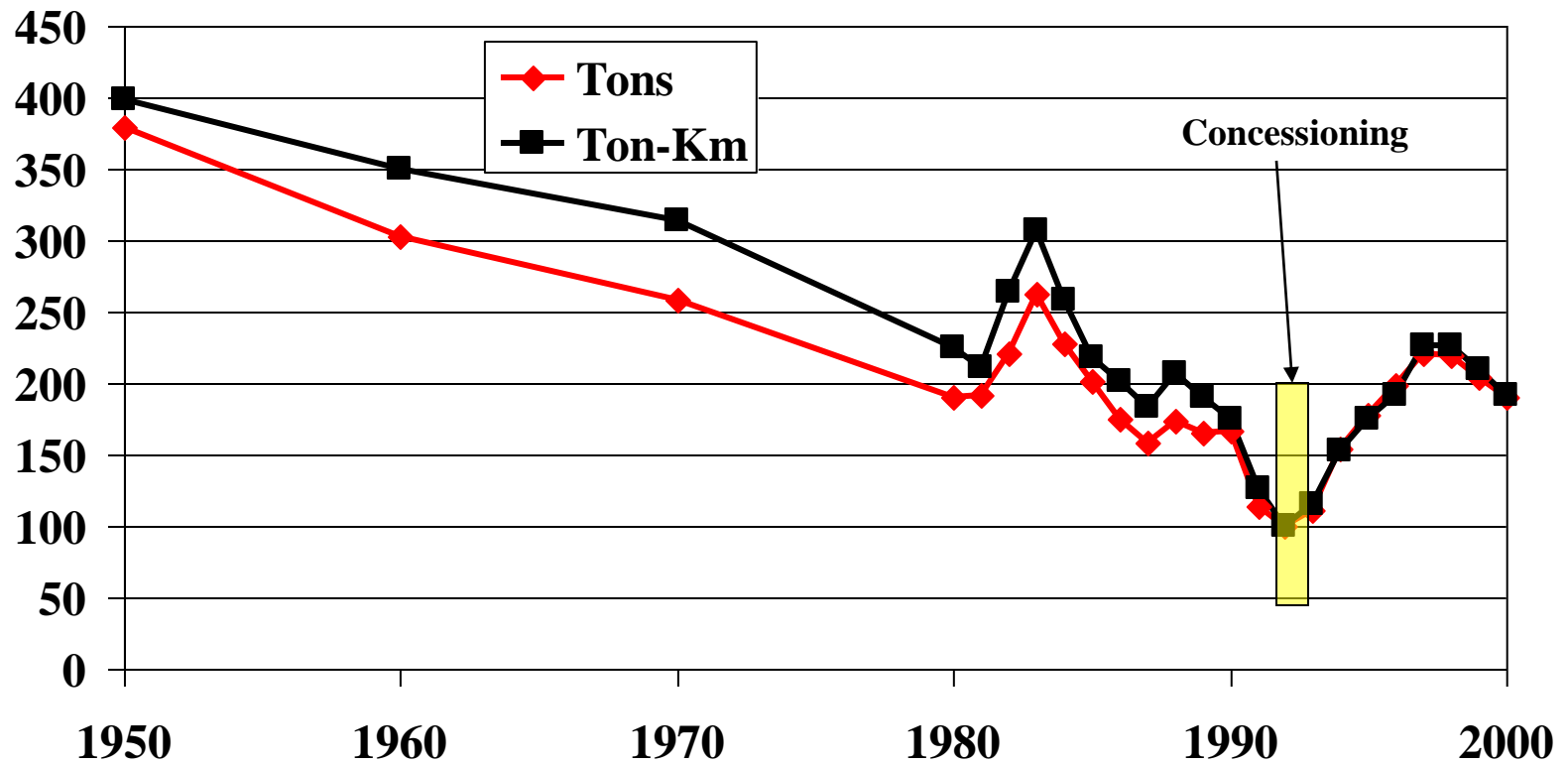


Figure C

Labor Productivity in Argentina

(000,000 TU/Employee)

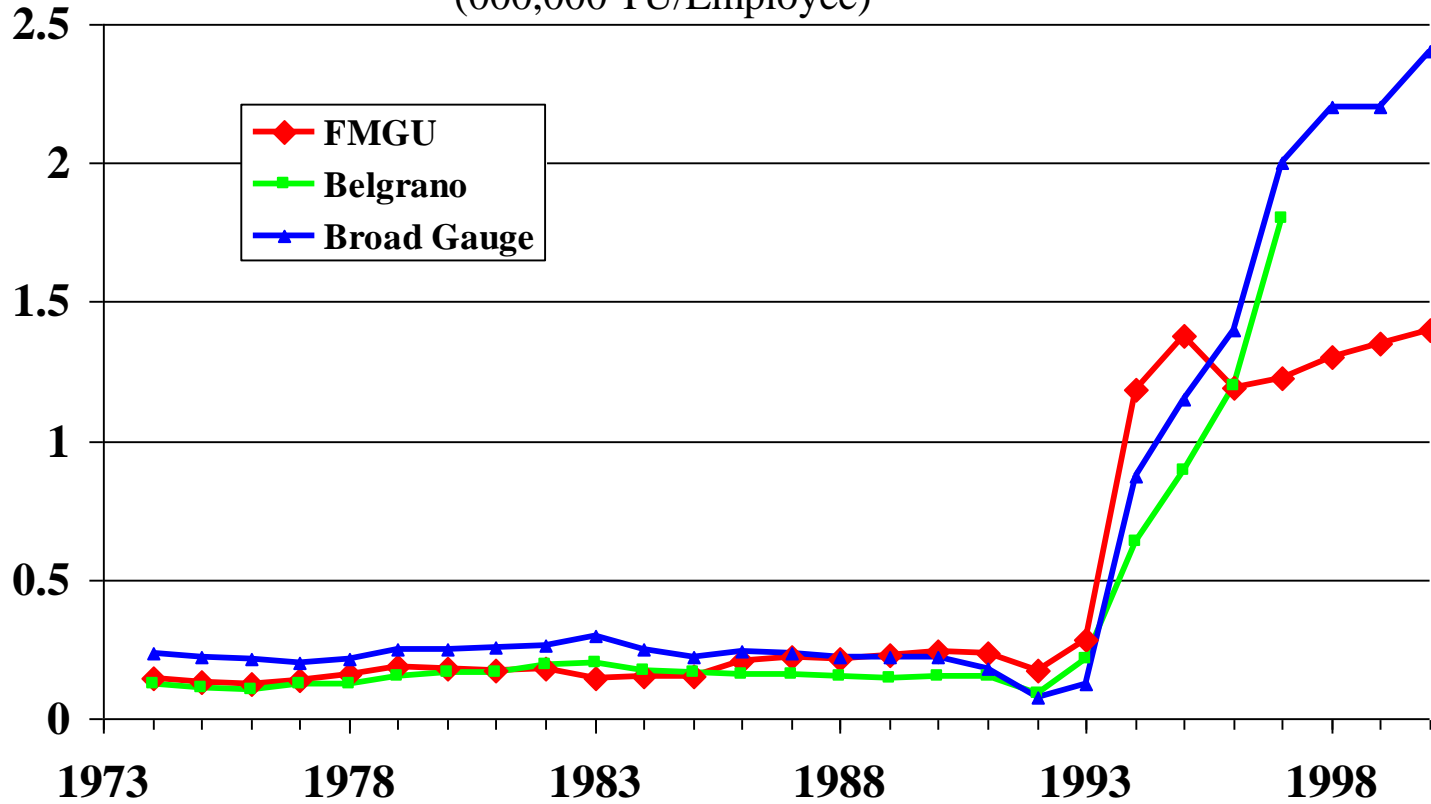


Figure D**Performance of the Argentine Freight Concessions**

(estimated through end of 1999)

| | | |
|-----------------------------------|-------------------------------|-----------|
| Ton-Km | In Proposal | 55,244 |
| (000,000) | Actual | 44,837 |
| | Ratio: Actual To Proposed (%) | 81.2 |
| Revenues: | In Proposal | 1,734,000 |
| (P\$000) | Actual | 1,022,400 |
| | Ratio: Actual To Proposed (%) | 59.0 |
| Peajes Owed To Concessions | | |
| (P\$000) | | 35,402 |
| Canon | In Proposal | 43,440 |
| (P\$000) | Actual | 12,854 |
| | Ratio: Actual To Proposed (%) | 29.6 |
| | Shortfall | 30,857 |
| Investments | In Proposal | 727,835 |
| | Actual | 289,814 |
| | Ratio: Actual To Proposed (%) | 39.8 |
| | Ratio: Actual To Revenues (%) | 28.0 |