Case Study

Mexico Railways[264]

1 Introduction

In the 1980s, Mexican Railways were suffering from poor productivity, significant operating deficits, and dwindling freight volumes. After unsuccessful attempts to overhaul the vertically integrated national railway company, the Mexican government set forth on a reform to open the railway sector to private investment and operation. Between 1996 and 1999, three major concessions were awarded, which guaranteed 30-year exclusive operating rights under 50-year operation and maintenance contracts. The concessions were allocated by geographic region, and were designed to spur competition through alternative access to key markets, parallel routings, and use of trackage rights along specified segments of track.

To date, the reform has been a very positive achievement for the Mexican Government. Freight tariffs have dropped, government subsidies for freight services have been entirely eliminated, and productivity has risen dramatically. Implementing the competitive trackage rights, however, has been an ongoing challenge. In 2016, a dedicated railway regulator was established in order to address, among other issues, trackage rights and tariff disputes. The new regulator remains untested, but its conduct in the coming years will have an impact on market behavior, particularly as the concessionaires near the end of the 30-year exclusivity period.

2 Situation before the Reform

Mexico's railways were originally built during the late 19th century to serve private sector mining and industry traffic. The network was financed by foreign capital and ventures, which were given concession rights and benefited from government subsidies.[265]

Over time, a popular movement to bring economically critical services under government authority led to the nationalization of the railways. In 1983, the Mexican

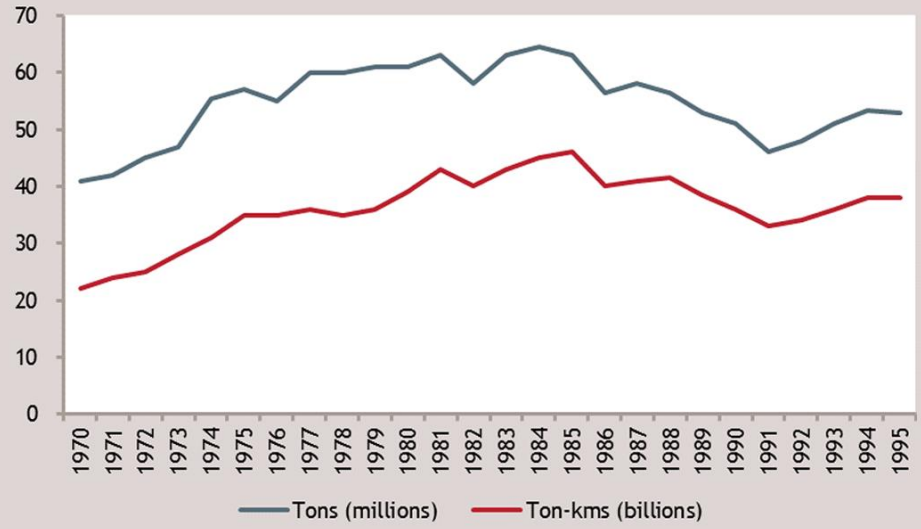
[264] This case study was prepared largely based on the following reports: OECD (2016). "Establishing Mexico's Regulatory Agency for Rail Transport: Peer Review of Regulatory Capacity." International Transport Forum (ITF); OECD (2014). "Peer Review of Railway Freight Development in Mexico." International Transport Forum (ITF); Campos, J. (2001). "Lessons from Railway Reforms in Brazil and Mexico." Transport Policy 8 (2001), p. 85-95; and Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen years later." Research in Transportation Business & Management 6 (2013), p. 45-50.

[265] Powell, F. W. "The Railroads of Mexico." Boston: The Stratford Co, 1921. Accessed online at: https://archive.org/stream/railroadsofmexic00powe#page/2/mode/2up

Constitution was amended to ensure that the federal government retained ownership and operations of the country's main rail services.[266] This changeover was legislated in the 1985 Ley Orgánica de los Ferrocarriles Nacionales de México (the Constitutional Law of the National Railways of Mexico), under which all rail lines were incorporated into the state-owned company, Ferrocarriles Nacionales de México (FNM, National Railways of Mexico). Mexico's Secretariat of Communications and Transportation (SCT) owned FNM, which was a vertically integrated monopoly offering domestic and international freight services as well as limited intercity passenger services.

By then, the Mexican rail network was characterized by poor performance and low productivity. Rail freight volumes in Mexico grew during the early-1970s, but by the mid-1980s, faced a decline in both volume and market share as competition from road freight transport increased[267] (Figure 1).

Figure 1 Rail Freight Traffic in Mexico 1970-1995



Source: Secretariat of Communications and Transportation 2014, and OECD (2014). "Peer Review of Railway Freight Development in Mexico." International Transport Forum (ITF).

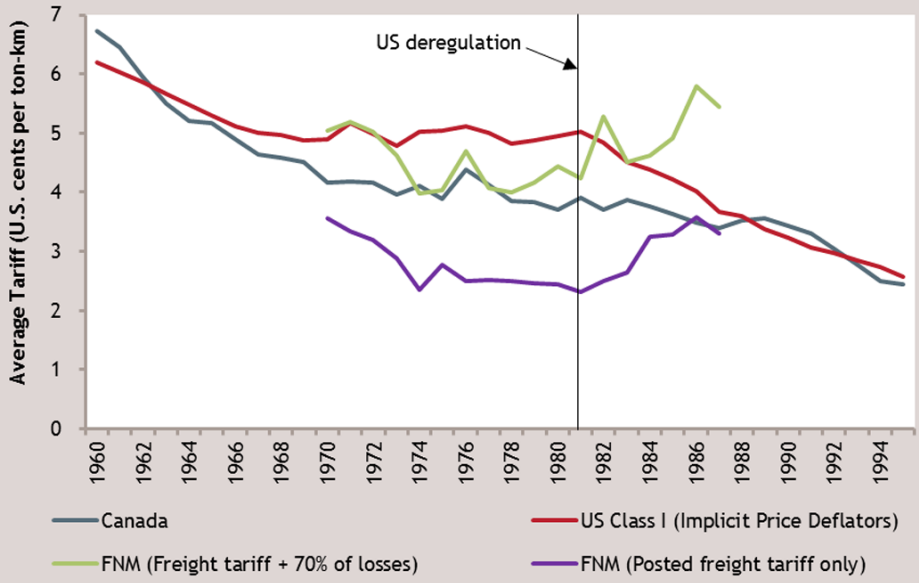
During the 1970s, FNM tariffs averaged less than 3 US cents per ton-km (Figure 2). At this tariff, FNM suffered substantial losses, which were subsidized by the government. By comparison, the deregulation of the US Class I railways in 1981 led to significant reductions in average freight tariffs across the country, to around 2.5 US cents per ton-km by 1995, indicating a notable improvement in efficiency (private rail operators in the US do not receive subsidies on freight tariffs).[268]

[266] Campos, J. (2001). Lessons from Railway Reforms in Brazil and Mexico. Transport Policy 8 (2001), p. 85-95.

[267] Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen *Years Later*." Research in Transportation Business & Management 6 (2013), p. 45-50.

[268] OECD (2014). "Peer Review of Railway Freight Development in Mexico." International Transport Forum (ITF).

Figure 2 Tariffs in North American Railways 1960-1995 (Constant US 2015 cents)



Source: Thompson, L.; FNM company statistics, 1987; Statistics of Class 1 Railways, published by the US STB; Railway Trends, published by the Railway Association of Canada.

FNM undertook several largely unsuccessful institutional reforms during the 1980s, and by the early 1990s, was operating with an annual deficit of over a half billion US dollars – the equivalent of 37 percent of its overall operating budget[269]. In an effort to improve its financial standing and productivity, commercially-oriented structural changes were announced under the Program for Structural Change (PCE). The initiative did lead to higher labor and locomotive productivity as well as improvements in FNM's financial performance, but the overall outcomes were insufficient to turn around the organization.[270]

Faced with an underperforming FNM and heavy competition from trucks, and the financial crisis of 1994-95, which required the government to take severe measures to reduce public spending, Congress amended the Constitution to permit private participation in the national railways in 1995. The same year, the government of Mexico announced that the FNM's network would be divided into manageably-sized rail lines for concessioning. A new railway law, the 1995 Railway Services Regulatory Law (LRSF), was passed outlining general procedures and conditions for private sector investment in the sector. Regulation of railway services continued to be administered by Mexico's Secretariat of Communications and Transportation (SCT).

[269] Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen Years Later." Research in Transportation Business & Management 6 (2013), p. 45-50.
[270] Campos, J. (2001). "Lessons from Railway Reforms in Brazil and Mexico." Transport Policy 8 (2001), p. 85-95.

3 Reform Goals

The Mexican government's reform objectives were to:

- Transfer the management of the railway from the publicly run FNM to the private sector
- Design an industry structure that encourages rail-to-rail market competition among vertically integrated operators
- Enable the railways to gain stable financial footing and minimize government subsidies in the railway sector

4 Reform Process

Much consideration was given to how to break up the FNM network into manageable concessions, and it was ultimately decided that a combination of geographic divisions and key freight markets would best foster intra-modal competition while also offering the highest return for the government. Under the design, no one concessionaire was to be granted sole access to a selected set of major cities, industrial areas, or key ports (Figure 3). In other words, the Mexican government used prescribed competition along routes or corridors where traffic levels were sufficiently high that two operators could be competitively sustained.

Three major rail lines were demarcated for concession, named after the geographic region they served – Pacific-North, North-East, and South-East – as well as a number of small concessions along purpose built or low traffic short-lines.

Figure 3 Geographical Characteristics of the Concessions

	Pacific-North	North-East	South-East	Short-lines
Track (% of total)	30.3	19.3	10.7	38.7
Freight traffic (% of total)	46.2	37.6	8.6	7.8
Revenues (% of total)	44.7	37.1	9.8	8.4
Main cargoes	Iron, coal, oil, grain	Corn, wheat, iron	Corn, wheat, oil	Various
Major industrial cities	Mexico City, Monterrey, Guadalajara	Mexico City, Monterrey, Guadalajara	Mexico City	Various
Major ports	Tampico, Manzanillo	Tampico, Veracruz, Lax, Cardenas	Veracruz, Coatzacoalcos, Salina Cruz	None

Source: Campos, J. (2001). "Lessons from Railway Reforms in Brazil and Mexico." Transport Policy 8 (2001), p. 85-95; SCT, 1996; Diario de la Republica Mexicana (Official Gazette)

Under the terms of the concessions, three guiding principles were used to drive competition as well as provide sufficient incentive to concessionaires:

- Allowance for parallel tracks
- Creation of alternative routes from ports and borders to key markets
- Designation of trackage rights[271] along defined segments of the network

[271] Trackage rights are agreements that grant one company (the "tenant") the right to operate along a railroad owned by or concessioned to another company (the "owner"),

Between 1996 and 1999, three major concessions (Figure 4) were granted along the major rail lines, as well as a series of short-line concessions (Figure 5)[272].

Figure 4 Main Concessions Awarded

Concessionaire	Rail Line	Length (km)	Concession date	Approx. value (US$ million)	Concession period (years)
Kansas City Southern de Mexico (KCSM, formerly TFM)	Northeast Railroad	4,300	May 1997	1,400	50
Ferrosur	Southeast Railroad	1,480	Dec 1998	322	50
Ferrocarril Mexicano (Ferromex)	Pacific-North Railroad	8,450	Feb 1998	527	50

Source: Texas Transportation Institute (2001). "The impact of Mexican rail privatization on the Texas Transportation System"; and Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen years later." Research in Transportation Business & Manage-ment 6 (2013), p. 45-50.

The concessions were awarded through a competitive bidding process and were each 50-year terms for the operation and management of the infrastructure, with 30-year exclusive operating rights. After the 30th year of the concessions, which will occur in 2027, the exclusivity rights are open to renegotiation, and concessionaires may lose their exclusive access. The Mexican government received approximately US$ 3 billion from the concessions (2014 prices)[273].

In the case of Mexico City, equal access was made possible by designating neutral track managed by a terminal company (TFVM) jointly owned by the three major concessionaires and the government of Mexico.

Passenger services were not a major concern in the reform process as public road transport in the country was largely considered sufficient, and passenger rail services were discontinued when alternative land transport was available. Where deemed essential, passenger services were either included in the aforementioned concession contracts, or were awarded under separate concessions to whichever company that offered to operate with the lowest subsidy.[274] The reason the Government had retained an interest in the Vale de Mexico concessions was so that it could award suburban passenger service concessions on some of the system, notably the part that was electrified some years ago, but the electrification was never used by FNM.

for agreed upon fees and access rights. In Mexico's case, trackage rights were mandated by law along certain routes to force competition. The total distance amounted to 2,160 km, equal to 12% of the total concessioned tracks.

[272] Chiapas-Mayab, a Mexican subsidy of the private investor, Genesee and Wyoming, decided to exit the Mexican market after the railway was heavily damaged by a hurricane. Given the traffic levels, costs of maintaining the network and overall difficulty of the operation prevented the private investor from continuing with the concession after the damage. The government re-took the railway, but it is uncertain if the government will concession that portion of the railway or if there is enough traffic to sustain a private operator.

[273] OECD (2016). "Establishing Mexico's Regulatory Agency for Rail Transport: Peer Review of Regulatory Capacity." International Transport Forum (ITF).

[274] Campos, J. (2001). Lessons from Railway Reforms in Brazil and Mexico. Transport Policy 8 (2001), p. 85-95.

Figure 5 Map of Conessioned Lines

In 2001, FNM was dissolved and its 1985 enabling law (the Constitutional Law of the National Railways of Mexico) was repealed[275].

In 2002 and 2006, Grupo Mexico, owner of Ferromex, attempted a buy-out of Ferrosur, but was twice blocked by the Federal Competition Commission (COFECE, formerly CFC) and KCSM, one of the other concessionaires. Eventually, KCSM withdrew their objection to the transaction after KCSM and Ferromex reached an agreement on trackage rights along critical sections of the network, which led to the successful takeover of Ferrosur by Grupo Mexico.[276] The end-result stresses the importance of trackage rights in ensuring fair competition between concessionaires.

[275] See the 2001 Decreto por el que se extingue el organismo público descentralizado Ferrocarriles Nacionales deMéxico y se abroga su Ley Orgánica

[276] OECD (2016). "Establishing Mexico's Regulatory Agency for Rail Transport: Peer Review of Regulatory Capacity." International Transport Forum (ITF).

In 2015, an amendment to the 1995 LRSF that addresses, among other issues, trackage rights and tariff setting was passed. The amendment also established the Railway Transport Regulatory Agency of Mexico (ARTF), a decentralized government body under SCT whose purpose is to serve as the dedicated regulator of Mexican railways[277], which started operation in August 2016. Specifically, ARTF's mandate is to resolve rate and service disputes and to set forth conditions for access through trackage rights when concessionaires cannot reach an agreement on their own accord.

5 Reform Results

The Mexican reform process did many things right. The Mexican government made a well-conceived plan for undertaking the concessions, and by revising or rewriting the laws accordingly, established a conducive legal environment for the private sector participation in the country's rail sector. By setting objectives for reform and designing a clear framework on how concessions were being offered, they were able to attract serious investors into the bidding process. The government decided on liability-free concessions, meaning that the concessionaires were not responsible for FNM's historical debt or existing union labor contracts.[278]

The reforms and associated laws allowed for a liberated market in terms of tariff setting. As a principle, railways need to be regarded as commercial businesses in order to encourage efficiency and engender both intra- and inter-modal competition. The Mexican government provided the concessionaires with the legal and regulatory freedom to set tariffs with individual shippers, so long as competitive alternatives were present.

However, trackage rights have been a constant challenge in the Mexican reform, and to date, many disputes remain unresolved. The concessions could have provided more benefits if the terms, conditions, and deadline for trackage right agreements had been specified during the concessioning process. Clear guidelines on this issue could have facilitated different concessionaries and the government to reach an agreement on the trackage rights, which, in turn, would have expedited investment to improve rail service.

Although the concessions explicitly delineated which lines would be subject to trackage rights, the law does not provide the terms of the agreements. The issues of trackage rights have been left at the discretion of the concessionaires to negotiate amongst themselves. In cases where concessionaires are unable to reach a voluntary agreement on trackage rights or where no effective competition exists, SCT is intended to intervene[279].

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[277] Posada, M. Inicia operaciones Agencia Reguladora de Transporte Ferroviario, 18 Aug, 2016. Accessed at: http://www.jornada.unam.mx/ultimas/2016/08/18/inicia-operaciones-agencia-reguladora-de-transporte-ferroviario

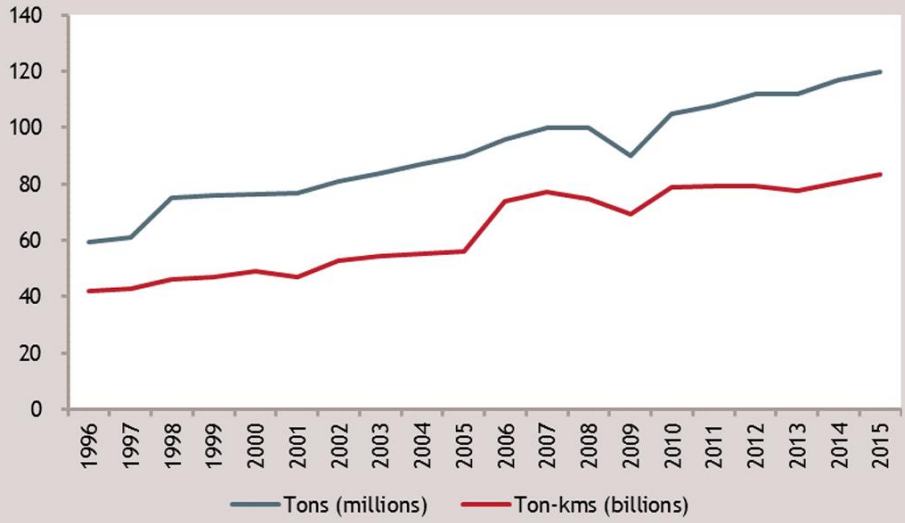
[278] Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen years later." Research in Transportation Business & Management 6 (2013), p. 45-50.

[279] The role of the SCT is in many ways envisioned to be similar to the regulators in the US and Canada and is limited to intervention in the case that no effective competition exists (which was in itself controlled for in the geographic design of the concessions) or when concessionaires are unable to agree on trackage rights.

These negotiations have largely resulted in stalemates. A major reason why trackage rights were contentious was that KCSM's extremely high bid was based on the market power granted in the concession design. If the Government forced competitive access on inadequate terms, it would attack the value of the concession and compensation would probably be required.

When faced with legal challenges, in many cases SCT has been unable to defend its case with sufficient analysis and argumentation[280]. The establishment of ARTF was needed precisely to build effective evidence-based cases. Further, setting cost-recovery tariffs have proved challenging due to the characteristically high capital cost of railways[281]. These disputes directly reduce market competition, since operators are effectively blocked along key trade corridors. In response, shippers from various industries (in particular, steel, minerals, and cereals) have contested tariffs citing a lack of alternative access.[282]

Figure 6 Rail Freight Traffic in Mexico 1995-2015



Source: SCT 2015, OECD (2014), "Peer Review of Railway Freight Development in Mexico." Interna-tional Transport Forum (ITF)

Notwithstanding, the reform can be hailed as a success. Mexican railways compare favorably with North American railways in terms of operating efficiency, which are

[280] The "amparo" mechanism in Mexico is designed to protect citizens and businesses from arbitrary government action. Thus, if an SCT decision is not backed by sufficient analysis and argumentation, judges will rule against it under the amparo mechanism.

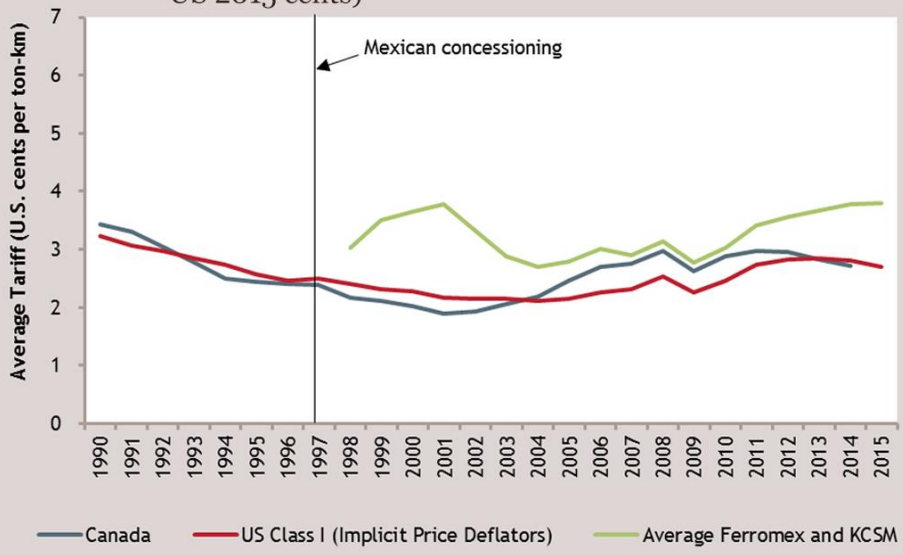
[281] An important aspect of tariff setting is that railways have characteristically high capital costs and low marginal costs. Thus, a tariff structure needs to allow vertically integrated operators to, in one way or another, recoup capital costs associated with its fixed infrastructure assets. Naturally, tariffs should be set high enough to cover the operating costs associated with shipping freight to its destination, but the decision as to how capital cost should be recovered is not as simple. In Mexico, a structure modelled on Ramsay pricing is used, whereby each shipper pays the highest individualised tariff based on the elasticity of their demand, i.e. discriminatory pricing. Each shipper does, without exception, benefit from discriminatory pricing because the cost is optimised: larger, less elastic shippers receiving higher tariffs are still paying a lower tariff than they would if smaller, more elastic shippers were priced off the railways.

[282] OECD (2016). "Establishing Mexico's Regulatory Agency for Rail Transport: Peer Review of Regulatory Capacity." International Transport Forum (ITF).

among the top-performing railways in the world in this regard. Both Ferromex and KCSM are Class I railways, with operating revenues exceeding US$250 million or more (measured in 1991 dollars). Traffic volumes doubled from 1995 to 2015 (Figure 6), and over the same timeframe, the rail market share compared to road has increased from 19 percent to over 25 percent[283].

Since the concessions took place, Mexican freight tariffs have been competitive compared to those in the US[284] and Canada (Figure 7). Subsidies from the Mexican government in the rail sector have been entirely eliminated.

Figure 7 Tariffs in North American Railways 1990-2015 (Constant US 2015 cents)



Note: 70% of FNM losses are assumed to be attributed to freight services between 1970 and 1987, while the remaining 30% are assumed to be attributed to the limited passenger services.

Source: Thompson, L.; Ferromex and KCSM reports to the Association of American Railroads (AAR) published in Railroad Facts; Statistics of Class 1 Railways, published by the US STB; Railway Trends, published by the Railway Association of Canada.

Productivity improved markedly and across the board since the concessionaires took over from FNM (Figure 8). By 2005, less than ten years after the concession, locomotive productivity more than doubled, while wagon productivity improved by 84 percent. Both have remained steady or improved ever since.

Figure 8 Mexican Railways Productivity Results

	1995	2000	2005	2010	2015
Locomotive Productivity (million ton-km per locomotive)	26.9	37.9	61.2	65.0	65.2
Wagon Productivity (million ton-km per wagon)	1.1	1.6	2.0	2.8	2.5
Labor Productivity (million ton-km per employee)	0.8	3.6	5.3	5.5	5.4

Source: SCT Statistical Yearbooks

[283] OECD (2014). "Peer Review of Railway Freight Development in Mexico." International Transport Forum (ITF).

[284] When average US freight tariffs are adjusted to account for the low tariffs associated with the coal industry in the US, Mexican freight tariffs are more or less equal to the US average.

Investment made by the private sector includes renewal of rolling stock, while reducing the fleet size and yet still keeping up with growing market demand through the purchase of higher horse power locomotives to replace older models. At the same time, productivity of the existing and new equipment was augmented by better maintenance and management practices, introduced in some cases by management from the U.S. and Canadian railways. Further, capital expenditure in track and equipment equating to almost twice as much as was committed in the concession agreements. Track improvements have allowed for the use of double-stacked container trains along major lines. The public sector has also invested in bypasses for congested city centers. Altogether, over US$9 billion[285] has been invested in Mexico's railway network since the reform.

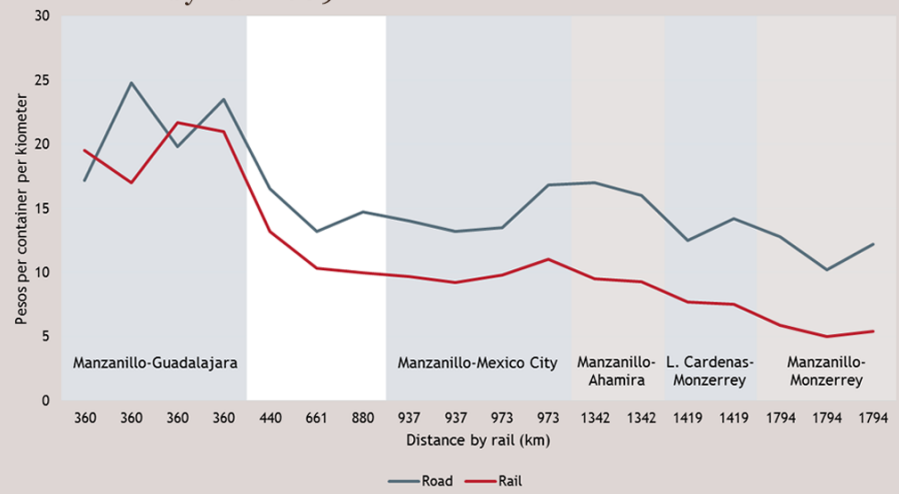
In terms of the labor force, employee productivity increased almost seven-fold. An important aspect in the design of the reform was how the Mexican government handled labor liabilities. The Railroad Union (STFRM) was continuously consulted during the concession process, and STFRM's contract was renegotiated whereby the government would pay all workers and terminate their contracts. A trust fund for retirees was created from the sale of the concessions. This approach effectively removed the labor liability from the future concessionaires and allowed them to re-hire necessary employees based on needs and employees' qualifications and experience.[286]

In the three years after the concessions took hold, the workforce was reduced by 62 percent, from 45,500 to 17,500. In subsequent years, the sector shed on average just below 7 percent per year[287]. Meanwhile, traffic volumes and market share were growing.

Tariffs have decreased substantially and are both in line with North American freight rates and competitive with road, particularly over long distances (Figure 9).

[285] Villa, J. C. & Sacristán-Roy, E. (2012). "Privatization of Mexican railroads: Fifteen years later." Research in Transportation Business & Management 6 (2013), p. 45-50.
[286] Ibid.
[287] Campos, J. (2001). "Lessons from Railway Reforms in Brazil and Mexico." Transport Policy 8 (2001), p. 85-95.

Figure 9 Cost per Kilometer for Containers Carried by Truck and by Rail 2009



Source: OECD (2015). Logistics Strategy and Performance Measurement: Mexico's National Ob-servatory for Transport and Logistics. International Transport Forum (ITF).

Grupo Mexico (including Ferromex and Ferrosur) and Kansas City Southern (holding company of KCSM) both operate profitable rail divisions and are publicly traded companies.

Grupo Mexico is comprised of three complementary divisions: Mining, Transport, and Infrastructure. Grupo Mexico is listed on the Mexican Stock Exchange (BMV) and is the fourth largest in the market in terms of market capitalization. Between Ferromex and Ferrosur, Grupo Mexico holds approximately two-thirds of the rail market share in Mexico. Its rail holding company produced net sales of US$ 1.89 million in 2015 with a gross margin of 40 percent. In 2014, its EBITDA margin was 34.5 percent, and its profit margin was 17.4 percent.[288]

Financial results from Ferromex are presented in the table below. Prior to the 2011 approval of the merger of Ferrosur and Grupo by COFECE, the financial information for Ferrosur was not consolidated with Grupo México.

Figure 10 Ferromex (of Grupo Mexico) Key Financial Statistics (million USD)

	2005	2010	2015
Operating Revenue	764	1,168	1,511
Operating Expenses (incl. admin.)	582	900	1,090
Operating Income	182	267	421
Net railway operating income	136	200	306
Capital Expenditures	89	127	290

Source: AAR Handbook

[288] Grupo Mexico Annual Reports.

Kansas City Southern is a transportation holding company with railroad investments in the U.S., Mexico, and Panama, and is listed on the New York Stock Exchange (NYSE). KCSM is its Mexican subsidiary, which operates a rail service between Mexico City and Laredo, Texas in the U.S. The border city is the busiest crossing between the two countries, in terms of both value and volume of road and rail traffic[289].

Historical financial results of KCSM are presented below. KCSM accounts for nearly half of Kansas City Southern's total freight revenue[290].

Figure 11 Kansas City Southern de Mexico (KCSM) Financial Statistics (million USD)

	2005	2010	2015
Operating Revenue	718	795	1,170
Operating Expenses	674	563	740
Net Income	104	64	289
Total CAPEX	81	101	337

Source: AAR Handbook

6 Conclusion

The Mexican railway reform transformed what was a deteriorating rail industry in the 1980s into a profitable and increasingly efficient railway. The thoughtfully-designed and well-executed concession process met the government's objectives for reform. Private sector operators were ushered in, which created intra- and intermodal competition, reduced tariffs, eliminated government subsidy in the freight market, and significantly improved productivity in the sector. The Mexican rail freight market has grown, both in terms of market share and volume.

The success of the concessions to date has been driven by a number of key factors, including a favorable existing environment at the time of concessioning. Although traffic had declined historically, the rail network remained functional at the beginning of the concessioning process. Initial investment in track and rolling stock was used to increase capacity and productivity in key areas, but was not needed to revive a non-existent network.

The Mexican rail network has always been directly linked with the North American integrated network, which has been mostly under private operation throughout its history. This has provided an ongoing example of effective mechanisms for long-distance movement of freight through interline agreements and clear mechanisms for division of through tariffs. In terms of cross-border trade, NAFTA has increased

[289] Villarreal, M. and Wilson, V. "Transportation Policy Brief #4 Rail and Logistics Hubs: Opportunities for Improvement." University of Texas. September 2015.

[290] Prince, S. How Kansas City Southern's Intermodal Performed against US Railroads. Nov 15, 2016. Accessed at: http://marketrealist.com/2016/11/how-kansas-city-southerns-intermodal-performed-against-us-railroads/

North-South flows throughout North America. Mexico and its rail industry benefited in particular from near-shoring of the automotive industry, whereby manufacturers have relocated to Mexico to serve the US market.

Since the concessions, regulation of the Mexican railway industry has been light-handed, essentially limited to resolving conflicts that could not be resolved through commercial negotiation. The design of the concessions, particularly the combination of geographically defined exclusivity periods and limited designated trackage rights with access fees, was carefully thought out from the start, despite implementation proving somewhat difficult. Although some disputes have been resolved, trackage rights remain a central issue.

The original concessions provided operators with 30 years of exclusive rights to their tracks, which are due to expire in 2027. As the expiration date nears, any uncertainty in the regulatory environment of the sector may slow investment and adversely affect industry performance. A common concern with concessions is that railway assets can become rundown over the course of the concession. Despite ongoing investment, Mexico's situation is not immune to this risk. The concessionaires and the government are going to need to deal with increasingly aging assets and associated investment needs, well beyond the 2027 expiration date.[291]

To assure operators, ARTF will need to exhibit both confidence and restraint in managing trackage rights and tariff disputes, as well as the broader challenges related to the sector framework and operations. In order to clear impact on disputed tariffs, ARTF must be afforded the resources to be able to make sufficiently argued, evidence-based decisions that will be accepted by judges in the technical courts. ARTF should decide early on what is exempt from regulation, and whether they will settle disputes through mediation, final offer arbitration, or constrained market pricing (the latter being much more data intensive). It would be advisable to adhere to regulatory and technical standards similar to those in Canada and the US, and to favor a model with manageable information requirements as well as human resource needs.[292]

Consultation with market players will be a key factor in ensuring that the concessionaires remain confident in the system leading up the end of the 30-year exclusivity period. ARTF will face not only short-term challenges, but will need to provide stability in the sector to insure that investments are not interrupted and that the assets do not suffer over the long term.

[291] OECD (2016). "Establishing Mexico's Regulatory Agency for Rail Transport: Peer Review of Regulatory Capacity." International Transport Forum (ITF).
[292] Ibid.