STRENGTHENING COMPETITIVENESS IN MEXICO THROUGH REGULATORY IMPROVEMENT

Redefining a National Transport Regulator in Mexico

NOVEMBER 2016
Foreword

The Ministry of Economy of the Federal Government and the Federal Commission for Regulatory Improvement (COFEMER) of Mexico have asked the OECD to carry out a review to identify the main characteristics which are present in the design of a suitable transport regulator. The objective of this review is to generate recommendations to improve the current institutional design of transport regulators in Mexico on the basis of international practices and relevant economic theory, in order to increase the competition playing field, the business environment and the competitiveness in the sector. This study is carried out as part of the cooperation between the Ministry of Economy, COFEMER and the OECD to strengthen competitiveness in Mexico through regulatory improvement.

Most of the main regulatory issues were identified through the economic theory of institutions, the OECD Principles of Regulatory Governance of Regulators and a series of meetings with public officials and economic regulators, including transport regulators, and business and private associations of the transport sector. Meetings were held between officials of the Regulatory Policy Division of the OECD and several departments of the Ministry of Transport and Communications of Mexico, including the General Directorate for Road Transport, the General Directorate for Civil Aviation, and General Directorate for Rail and Multimodal Transport.
Acknowledgements

The work underlying this report was led by Manuel Flores Romero under the supervision of Nick Malyshev, Head of the Regulator Policy Division, OECD Public Governance and Territorial Development Directorate. Andrés Blancas Martínez, and Alberto Morales Villarreal prepared the drafts.

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Acronyms and abbreviations

AAR  Association of American Railroads
AFAC  Federal Agency of Civil Aviation
AREMA  American Railway Engineering and Maintenance-of-Way Association
ARTF  Regulatory Agency of Rail Transport
CAA  Civil Aviation Authority (UK)
CASA  Civil Aviation Safety Authority (Australia)
CFE  Federal Commission of Electricity
CNH  National Commission of Hydrocarbons
COFECE  Federal Commission of Economic Competition
COFEMER  Federal Commission for Regulatory Improvement
CRE  Regulatory Commission for Energy
DGAC  General Direction of Civil Aviation
DGAF  General Direction of Federal Road Transportation
DGTFM  General Direction of Rail and Multimodal Transportation
DOF  Mexican Federal Official Gazette
EIA  Environmental Impact Assessment
FAA  Federal Aviation Administration (United States)
FHWA  Federal Highway Administration (United States)
FRA  Federal Railroad Administration (United States)
GDP  Gross Domestic Product
GHS  Ground Handling Services
ICAO  International Civil Aviation Organization
IFT  Federal Institute for Telecommunications
LFPA  Federal Law of Administrative Procedures
LOAPF  Federal Public Administration Law
LRSF  Regulatory Law of Rail Service
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>NHVR</td>
<td>National Heavy Vehicle Regulator (Australia)</td>
</tr>
<tr>
<td>NOM</td>
<td>Mexican National Standard</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
</tr>
<tr>
<td>ORR</td>
<td>Office of Rail Regulation (UK)</td>
</tr>
<tr>
<td>PEMEX</td>
<td>Mexican State Owned Oil Company</td>
</tr>
<tr>
<td>RIA</td>
<td>Regulatory Impact Assessment</td>
</tr>
<tr>
<td>SHCP</td>
<td>Ministry of Finance</td>
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<tr>
<td>SCT</td>
<td>Ministry of Communications and Transport</td>
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<tr>
<td>SE</td>
<td>Ministry of Economy</td>
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<tr>
<td>SENER</td>
<td>Ministry of Energy</td>
</tr>
<tr>
<td>SEMARNAT</td>
<td>Ministry of Environment and Natural Resources</td>
</tr>
<tr>
<td>TCS</td>
<td>Air Traffic Control Services</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
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</table>
Executive Summary

The objective of this review is to generate recommendations to improve the current institutional design of transport regulators in Mexico on the basis of international practices and relevant economic theory, in order to increase the competition playing field, the business environment and the competitiveness in the sector.

Most of the main regulatory issues were identified through the economic theory of institutions, the OECD Principles of Regulatory Governance of Regulators and a series of meetings with public officials and economic regulators, including transport regulators, and business and private associations of the transport sector.

At the moment this report was planned and initially written, the current institutional arrangements of the authorities overseeing transport regulation have the organization of general directions within SCT. Nonetheless, a law reform of the Regulatory Law of the Rail Service, published on January 26th 2015, transformed the General Direction of Rail and Multimodal Transport to a de-concentrated body belonging to the SCT. In August 18th of 2016 however, there was published on the Official Gazette, the Decree by which was created the Regulatory Agency of the Rail System with technical, administrative and operative capacity. Likewise, there is a similar law project to transform the General Direction of Civil Aviation into a Mexican Agency of Civil Aeronautics but the project has no developed to the formal constitution until date.

Therefore, a dual objective conducts this document: to assess the current design of the Mexican transport regulators and to propose recommendations to improve their arrangement. The study focuses in the three most important means of transport: aviation, rail and road.

The *OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators* are employed to assess the institutional setting and performance of the Mexican transport regulators. These principles provide governments with a guide to consider when establishing or reforming regulatory agencies and regimes, and at the same time they offer regulators advice on how to evaluate and improve the governance arrangements to become more effective. The principles includes provisions for (1) Role clarity, (2) Preventing under influence and maintaining trust, (3) Decision making and governing body structure for independent regulators, (4) Accountability and transparency, (5) Engagement, (6) Funding, and (7) Performance evaluation.

The main principles and related literature on the economics of organizations’ architecture are also considered. The purpose is to provide the policy maker with complementary elements to the OECD principles and to present the main elements identified by economic theory which should be taken into account when assessing the institutional design and performance of
Mexican transport regulatory bodies. The principles surveyed and discussed include principal-agent theory, moral hazard, adverse selection, free riding, regulatory capture, and challenges in coordination.

The institutional arrangements and practices of transport regulators from Australia, Canada, USA, and the UK are presented and examined in this chapter, in order to create a baseline, which will be employed to assess the Mexican transport regulators. In particular, for the air transport regulators, the governance arrangements of the Federal Aviation Administration (FAA) of the United States, the Civil Aviation Safety Authority (CASA) of Australia, and the Civil Aviation Authority (CAA) of the United Kingdom are surveyed. For the case of rail transport regulators, the study includes an overview of the governance arrangements of the Federal Railroad Administration (FRA) of the United States, of the Transportation Agency (CTA) of Canada, and of the Office of Rail Regulation (ORR) of the United Kingdom. Finally, for the case of road transport regulation, the examples of the Federal Highway Administration (FHWA) of the United States, of the Highways Agency of the United Kingdom, and of the National Heavy Vehicle Regulator (NHVR) of Australia are examined to review their governance arrangement.

An assessment of the institutional design of the transport regulators in Mexico as established in the current legal framework is included. The analysis also cover provisions set in existing proposals of modifications of the legal instruments, such as the draft decree to create a new agency to oversee the regulation in the rail industry. The assessment also includes the current practices of the regulators, which were recorded through detailed interviews with stakeholders. The assessment tries to ascertain whether the institutional architecture and practices of transport regulators in Mexico are consistent with OECD principles. It is found that much remains to be done to bring the governance arrangements of the transport regulators closer to OECD principles.

The policy options suggested to achieve this include:

1. Mexico should consider establishing a single, independent regulator which encompasses the three modes of transportation. This body is to have three general areas; rail, road and air transportation. This proposal goes beyond the current efforts of the federal government, who has decided to create decentralized bodies for rail and air transport regulators.

2. Coordination agreements between the proposed transport regulator and other significant public agencies like COFECE, Customs, the Federal Police, COFEMER, IFT, etc. are recommended to be established.

3. The proposed regulator should only be responsible for enforcing technical and economic regulation. Activities regarding industry promotion should be kept as SCT responsibilities.

4. Mexico should consider establishing a governing body for the transport regulators using the Commission Model. In this model the board is the main responsible for the oversight, strategic guidance and operational policy of the regulator. The board itself also makes most substantive regulatory decisions.

5. It is suggested the implementation of a consultancy council formed by external, recognized and relevant actors which should have opinion but no voting capacities.
The objective of this council is to provide technical support in decisions, create public confidence and avoid public and industry capture. The profile of the external council should include a member of the SCT to keep the governmental point of view, a representative from the industry and the rest of members from academia or expert organizations with no links to the government or the industry. Of course, is possible to expand de analysis and include representatives from COFECE, COFEMER, IFT and SEMARNAT, as they would have shared responsibilities or the agency has an impact on the objective of such institutions.

6. The budget for the transport regulator should be assigned in order to achieve the planned outcomes and objectives. The budget should be sufficient for the transport regulator to undertaking all the duties assigned.

7. The transport regulator should establish formal communication channels with stakeholders and formal procedures of public consultation to collect evidence and information. Of course, it does not preclude that the agency must have budget an powers to collect information from many sources to undertake its duties. These arrangements are likely to create confidence with the public. The consultancy council mentioned above should be part of this strategy. Provisions for regulatory impact assessment and consultation over regulatory decisions should also be implemented, similar to the current existing ones.

8. Performance evaluations to measure the impact of the regulator over the regulated industry, potential and actual consumers and other stakeholders should be carried out periodically by the transport regulator. In this way, the regulator will have information on the degree of impact of its activities, and will be able to take actions to improve its performance.

9. As part of the performance evaluation, relevant performance indicators across all modes of transport should be developed. This should include safety, security, finance, environment, and infrastructure and consumer satisfaction.

10. As part of the performance evaluation strategy, both ex-ante and ex-post impact assessments of the regulation should be carried out.

11. The transport regulator should produce and provide information and standardized statistics in easy to handle layouts and formats.

12. The transport regulator should provide justification on its regulatory decisions and make them public.
Introduction

In the past years, the Federal Government of Mexico has made an extensive effort on strengthening the institutional design of regulatory authorities. In 2013, the Mexican Congress approved constitutional reforms to create two autonomous bodies: the Federal Telecommunications Institute (Instituto Federal de Telecomunicaciones, IFT) and the Federal Commission for Economic Competition (Comisión Federal de Competencia Económica, COFECE). In previous years, both institutions were decentralized bodies: the IFT (formerly the Federal Telecommunications Commission) belonging to the Ministry of Communications and Transport (SCT), and COFECE (formerly the Federal Competition Commission) was belonging to the Ministry of Economy.

In this context, there are further efforts to enhance the institutional design on transport regulators. At the moment this report was planned and written, the current institutional arrangements of the authorities overseeing transport regulation have the organization of general directions within SCT. Nonetheless, a law reform published on January 26th 2015, transformed the General Direction of Rail and Multimodal Transport to a de-concentrated body belonging to the SCT. Likewise, there is a similar law project to transform the General Direction of Civil Aviation.

Therefore, a dual objective conducts this document: to assess the current design of the Mexican transport regulators and to propose recommendations to improve their arrangement. The study focuses in the three most important means of transport: aviation, rail and road. These three sectors combined represent a significant share of the economic activity of Mexico. During the 1995–2016 period their combined average economic value was close to 5% of the national GDP, and they all had a higher average growth rate than the national GDP growth rate for the same period. Thus, the objective of seeking to increase the sectors’ competitiveness is justified. To do so, a proper regulation has to be implemented, coupled with the establishment of well-designed institutions.
The design of any regulatory institution involves multi-criteria decisions: from the degree of independence to the evaluation of the performance of the regulator. Every aspect must be considered as an element of a complete plan. For example: if full independence is granted to the regulatory body without clear accountability measures, there may be drawbacks and limited gains. For instance, independence is thought as a mechanism to reduce the probability of regulatory capture and exert of undue influence from public institutions—and increase technical capacities. Thus, if accountability is not granted, the independent institution will not be scrutinized and, as a consequence, the objectives by which it was created would not be reached. It is important to get that as long as any institution is independent, it must increase their accountability responsibilities. In this sense, it is imperative to perform a thorough analysis on the desirable characteristics of the regulator.

The broad conclusion of this document is that given the Mexican context, the industry requires a single and independent transport regulator for the three modes of transportation. This institution should be led by an expert committee, with faculties and budget aligned to the main objectives and functions. This conclusion is based in the relevant economic principles of institutional design, the OECD Principles of Regulatory Governance of Regulators and the main findings from assessing the institutional arrangements of the current regulators. In the following sections, the main baseline for this conclusion is explained but some insights will be advanced: coordination costs in Mexico are as relevant that transport regulators barely have formal contact with institutions with which they have shared responsibilities. On the other hand, institutions in Mexico have a tradition of dependence from the Executive Federal; this situation has improved over recent years but technical independence would be potentially
hampered if technical institutions are still on the political wave. National institutions under
the umbrella of the executive federal follow the political changes; it implies that technical
experience can be substituted by political appointments and the transport regulators seem
to follow such path. Regulatory duties in hand of regulators with other functions would fade
away or low-prioritized contrary to industry promotion; and these would happen with some
degree with any area under the ministry. Finally, a single regulator would take advantage of
budget savings as many of the activities would not be duplicated.

The structure of the document is as follows. The document begins with a brief description
of the methodology in chapter I. Afterwards, the relevance on designing an effective transport
regulator for Mexico is discussed in chapter II. Next, in Chapter III the seven OECD Principles
of Regulatory Governance of Regulators are explained, which form the basis for the evaluation
of the institutional design of the Mexican regulators. Subsequently, a revision of economic
principles from academic literature is presented, specifically on regulators and supervisors,
multiple supervisors, regulatory capture and coordination among authorities is presented in
Chapter IV. In Chapter V, a benchmark of best practices among OECD countries is presented—
cases for regulators in Australia, Canada, the United Kingdom and the United States are subject
to a comparative analysis The analysis of the regulatory authorities of Mexico which includes
the description of the current institutional design of the three Mexican transport regulatory
authorities is contained in Chapter VI. In this chapter the OECD principles are applied to have
a deeper glance of the actual design of Mexican transport regulators. Finally, in Chapter VII
the recommendations to re-design a transport regulator in Mexico are explained.
I. Methodology of the report

This chapter presents the methodology employed to prepare the present report. Four pillars are mainly employed: 1) the OECD Principles of Regulatory Governance of Regulators; 2) the relevant economic principles which includes the theory of institutions, principal-agent theory, microeconomic principles and monopoly theory; 3) the current institutional design and practices of transport regulators at OECD countries; and 4) assessment of the status quo of Mexican regulators.

The objective of the document is to assess the institutional design and current practices of transport authorities in Mexico (road, rail and civil aviation) in order to identify insights and produce recommendations to the Ministry of Communications and Transport (SCT) and the Ministry of Economy (SE), so that a better institutional arrangement for transport regulators in Mexico might be achieved. These recommendations are to be aligned with the national context and objectives of the industry and the international experience. The key elements that steer the recommendations are economic efficiency, accountability and institutional capacity to regulate economic actors.

The methodology to prepare this document is mainly based on four pillars: 1) the OECD Principles of Regulatory Governance of Regulators, which contains the most relevant institutional elements that a regulatory agency should exhibit, according to the consensus of the OECD country members in the framework of the OECD Regulatory Policy Committee; 2) the relevant economic principles which includes the theory of institutions, principal-agent theory, microeconomic principles and monopoly theory; 3) the current institutional design and practices of transport regulators at OECD countries; and 4) assessment of the status quo of Mexican regulators. Of course there are institutional issues that have strong influence over
transport sector performance as the judiciary institutional capacity and effectiveness. This topic, however, is out of the current project and deserves a focused study.

The OECD principles are summarized in this document with the objective to ascertain the degree to which current national regulators follow these principles while performing their activities. Across OECD countries to follow these principles is considered a good practice in order to achieve better regulatory performance in the long run, and hence better economic outcomes. For the case of Mexican transport regulators, it is important to identify which activities are aligned with these principles and define opportunity areas so as to devise an improvement strategy.

Economic principles and related literature regarding institutions are also discussed briefly. The purpose is to provide the policy maker with complementary elements to the OECD principles and to present the main elements identified by economic theory which should be taken into account when assessing the institutional design and performance of regulatory bodies. At the end of the document, recommendations will be based on both the OECD principles and the main economic rationality and theories.

The current design and practices of similar regulatory bodies in OECD countries, namely Australia, Canada, the United Kingdom and the United States are employed also as the comparative framework for the assessment of the Mexico regulators. In turn, the current institutional arrangements and capacity of the Mexican regulatory bodies is assessed employing both the analysis of their regulatory framework, as well as from information collected from direct interviews with the regulatory bodies and the industry. The schedule of interviews is shown Table 1:

Table 1. Schedule of meetings with stakeholders

<table>
<thead>
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<th>Institution</th>
</tr>
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<tbody>
<tr>
<td>Feb-17-2015</td>
<td>Regulatory Policy</td>
<td>Federal Institute of Telecommunications</td>
</tr>
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<td></td>
<td>Institutional Affairs</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td></td>
<td>Regulatory Improvement</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td></td>
<td>Financial Administration</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td></td>
<td>Strategic Planning</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td>Feb-18-2015</td>
<td>General Direction of Railway Transportation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
<tr>
<td>Feb-19-2015</td>
<td>General Direction</td>
<td>National Association of Manufacturers of Buses, Trucks and Tractors (ANPACT)</td>
</tr>
<tr>
<td></td>
<td>Industry Representatives</td>
<td>Mexican Association of Railways (AMF)</td>
</tr>
<tr>
<td>Feb-20-2015</td>
<td>Former General Director CANAERO</td>
<td>Ministry of Communication and Transportation</td>
</tr>
<tr>
<td>Mar-04-2015</td>
<td>General Direction of Federal Transportation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
<tr>
<td>Mar-04-2015</td>
<td>General Direction of Civil Aviation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
</tbody>
</table>

Source: Own elaboration.
II. The relevance to design an effective transport regulator

This chapter discusses briefly the economic relevance of the transport sector in Mexico. It states that the recent rate of growth and relative volume of economic activity in the transport sector makes relevant to assess the current institutional settings and performance of the transport regulators. Also, the chapter describes the recent wave of reforms in telecommunication, competition and energy in Mexico, as a way to emphasise that upgraded regulatory bodies are being set in Mexico, which can serve as inspiration to the enhancement of regulatory bodies in the transport sector.

Economic relevance of the transport sector

The necessity to design a new regulator in the transport sector is based foremost on the relevance of the economic activity the regulatory body pertains to. Certainly, the transportation sector is a relevant economic activity on its own, as it will be shown later, but at the same time, it is a driver of other economic activities. According to Hilferink (2005), historically, there is a strong statistical correlation between growth of the GDP and growth of transport in freight and passenger, measured in tones-kilometres and person-kilometres.

Hilferink suggests that the transport industry has a direct impact over the performance of other economic activities thorough productivity and by consequence in the GDP of any economy. This marks the importance of knowing the dynamics of the industry, and the need to improve its competitiveness through the achievement of international standards. A structural
approach to improve the performance of some sectors (between other objectives), including transportation was the liberalization, which potentially would increase the level of trade, lower prices and increase the traffic in the transport sector since 1989, even with the reversal of economic activity of the industry for several years due to a poor macroeconomic performance (OECD, 1999). For instance, the average change in tonnes in yearly basis of rail transportation went from −1.66% in the period 1983–1994 to 4.22% in the period 1995–2015. In terms of the prices of services it can be observed that the average inflation rate has decreased since the liberalization in road (1989) and rail transportation (1998) of freight, see Table 2.

Table 2. **Average inflation rate, before and after the liberalization process of each transportation mode**

<table>
<thead>
<tr>
<th></th>
<th>Preceding Period</th>
<th>Subsequent Period</th>
<th>Analysed Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucking</td>
<td>84.5</td>
<td>12.0</td>
<td>36.5</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>90.3</td>
<td>18.8</td>
<td>39.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Preceding Period</th>
<th>Subsequent Period</th>
<th>Analysed Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Railroad</td>
<td>20.9</td>
<td>2.7</td>
<td>37.8</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>21.1</td>
<td>8.2</td>
<td>39.3</td>
</tr>
</tbody>
</table>

*Source: Replication of a table presented by López et al, 2004.*

The link between transport and development has been analysed frequently and it is recognized that transportation can either boost or create barriers to economic growth because it expand the economies of scale and scope and links goods with necessities. The contribution of transport in economic development, according to the World Bank (2011), is originated by the following:

- Linking more locations increases exponentially the value and effectiveness of transportation (network effects).
- Improving performance reduces costs and time and increase the contribution of transport to GDP.
- Reliability and improvement in transportation time reduces economic drag.
- Access to big markets increase economies of scale and scope.
- Transport increases productivity from larger and more diverse inputs and from broader markets for more diverse outputs.

As mentioned, it is important to give context of the relevance of the transportation sector. Between 1995 and 2016, the economic value of transport, post and storage services in Mexico accounted for 5.8% of the total GDP on average. It is worth to notice that this category has increased on average in a faster pace than the global GDP of the country for the same period, as it can be seen in Table 2. In a global basis, the GDP of Transport, Post and Storage services

1 2015 Railway Statistical Yearbook.
(defined by INEGI) has increased 83.8% versus 78.3% of the global GDP fur such period. The transport sector however, is not the most active of the tertiary sector, since its growth is lower than the former in 0.2 percentage points on average. These indicators can give us an idea of the dynamics and importance of the sector for the economic activity in Mexico.

In a similar way, the importance of each mode of transportation can be analysed. In the same table, it is possible to observe that the growth rate of road transportation is the largest for the period 1995–2015, with a 4.2% rate, followed by air and rail with 5.5% and 3.5% as annual average growth rate, respectively. The growth of the total industry value in the same period represents 128.1% for road, 189.4% for air and 128.1% for rail.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP. Total</td>
<td>2.9%</td>
<td>78.3%</td>
</tr>
<tr>
<td>GDP. Tertiary sector</td>
<td>3.3%</td>
<td>90.6%</td>
</tr>
<tr>
<td>GDP. Transport, post and storage</td>
<td>3.1%</td>
<td>83.8%</td>
</tr>
<tr>
<td>GDP. Air transport</td>
<td>5.5%</td>
<td>189.4%</td>
</tr>
<tr>
<td>GDP. Rail transport</td>
<td>3.5%</td>
<td>99.4%</td>
</tr>
<tr>
<td>GDP. Maritime transport</td>
<td>0.6%</td>
<td>11.7%</td>
</tr>
<tr>
<td>GDP. Road transport</td>
<td>4.2%</td>
<td>128.1%</td>
</tr>
</tbody>
</table>

*Source: National Accounts System, National Institute of Statistics and Geography (INEGI).*

In the Figure 2, the path of the GDP of all modes of transportation in Mexico for the period 1995–2015 can be observed. Road transportation is by far the most important transportation mode in Mexico as it has the largest share of the GDP of Transport, Post and Storage services. Freight transportation by road accounted for 420,099 million pesos in December of 2015 and passenger accounted for 268,009 million pesos in nominal basis. In contrast, air transport accounted for 30,391 and rail for 17,135 million pesos for the same period.

The dynamic of the transport GDP has maintained a growing tendency since 1995. It has experienced however, some disturbances linked to national and international economic crises. Freight transport is quite sensitive to these economic shocks. In 2009, the sector had an important drop which was more evident in air transportation. In general, the effects of these disturbances were also more evident in freight than in passenger services—the graph shows the path of freight and passenger in road transportation.

The recent rate of growth and relative volume of economic activity in the transport sector makes relevant to assess the current institutional settings and performance of the transport regulators, in order to aim for a betterment of the regulatory institutions to ensure a competitive playing field and quality in the services.
II. THE RELEVANCE TO DESIGN AN EFFECTIVE TRANSPORT REGULATOR

In what follows, the efforts to strengthen regulatory institutions in Mexico are discussed.

Mexico and the process to reform strategic sectors and create adequate regulatory institutions

The assessment of the current regulatory bodies in the transport sector and the proposal of recommendation to improve their institutional design presented in this report are framed by a recent wave of reforms in sectors of economic significance in Mexico. These reforms resulted in, amongst other things, the creation of new regulatory bodies, aimed at providing adequate oversight of the market and firm behaviour, in order to ensure seek maximum benefits to consumers and society at large. The review of this recent reform experience can contribute to bolster support to extend similar efforts to the transport sector.

Since 2011, Mexico achieved a stride in the path to change structural conditions in the country through constitutional and law-level reforms approved by the Mexican Congress. Some of these reforms were on the waiting list of the structural recommendations made by some international organizations such as OECD (OECD 2013).

These reforms focused on topics regarding labour, education, finance, accountability, telecommunications, competition, energy, and taxes, amongst others. Three reforms stand out for the purpose of this document since they created, modified or strengthened a regulatory body. These are the reforms in energy, telecommunications and competition, which have as a general objective to boost the economic activity, relying significantly in the design of regulatory institutions and oversight bodies.

Telecommunications and competition reform

In June 11th, 2013 a constitutional reform in telecommunications and competition was published in the Official Gazette of Mexico with the objective to foster competition across sectors and to improve the economic and technical regulation in telecommunication. The
reformed articles of the Constitution were the 6, 7, 27, 28, 73, 78, 94, and 105. Perhaps the most relevant change was the reform to Article 28 which now grants autonomy to the Federal Economic Competition Commission (COFECE) and to Federal Institute of Telecommunications (IFT). In the same article, the institutional arrangement of each body and their main responsibilities are also defined. In this matter, it stands out that the IFT has regulatory and competition responsibilities, contrary to the previous institution which focused only on regulation—thus the COFECE has no longer faculties on telecomm industry. The current IFT is now an institution that integrated two previously separated attributions, which implies gains in coordination and specialization within the institution, but the risk of stronger lobbying by the industry that may lead to capture can increase. As the number of regulators decreases, lobbying efforts by the industry are more focused. According to Article 28, the main elements of the institutional arrangement in both agencies can be summarized as follows: 1) autonomy in judgments and operation; 2) self-execution of budget; 3) creation of their own organization statute; 4) division of duties and responsibilities between IFT and COFECE based on specific regulation; 5) transparency and accountability responsibilities; 6) appeal of their final acts only by indirect *amparo* with suspension of the decision in case of divestiments and judicial disputes conducted by specialized courts; 7) publication of their annual working programme; 8) publication of the commissioners’ salary and entry and removal process; and 9) the establishment of the internal comptroller’s office.

After the constitutional reform, the national Congress approved two laws for the telecommunication and broadcasting sectors: the Federal Law of Telecommunications and Broadcasting and the Law of Public Broadcasting System of Mexico, which were published by the SCT in the Official Gazette on July 14th, 2014. Regarding competition policies in Mexico, the new Federal Law of Economic Competition was published on May 23rd, 2014.

Besides the fact that the new laws did modify the legal framework for each institution, they also stated specifications to change the operational structure of each institution. It also provided powers to the Executive branch by itself or through the Ministry of Economy to present cases regarding violations of competition law or to investigate possible barriers to competition, essential facilities or absence of effective competition in the markets.

**The energy reform**

In December 20th, 2013 the energy reform was published in the Official Gazette, with the objective to modernise the sector. Energy was previously in full control of the Executive Federal for many years due to the strategic status that the government assigned to several related activities involving the production, transmission and distribution of hydrocarbons, gas and electricity. This situation caused limitations to the national energy industry on international grounds due to lack of potential investments. Thus, one of the major achievements of the reform was to open the possibility of private investors participating in the production and distribution of oil, natural gas and electricity.

The Mexican Constitution still establishes the ownership of hydrocarbons to the Mexican State. In Article 27 however, it is stated that exploration and extraction of oil and natural gas

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2 A legal instrument which if requested by individuals or business and if granted by a judge, can suspend the effects of a legal resolution issued by the government of other authority.
are strategic activities, so it is forbidden to grant concessions on these areas. So as to increase the investment on hydrocarbons extraction, the State can now contract private firms, either in individual contracts or in association with PEMEX through profit shared contracts. With this reform, it is expected that the government will now share or completely transfer the risks associated with the exploration and extraction of oil and natural gas.

Regarding hydrocarbons, the reform included the Zero Round strategy in which PEMEX will receive priority in project allocation, but only according to its own interests and capacities to develop projects—technical, financial and enforcement capabilities. Reforms also allow the possibility to contract transportation, storage and distribution of oil, natural gas and petrochemicals with private firms. It also permits access to private firms to the processing of natural gas and oil refining. Until now however, the reform has brought the Round 1 and 2, which includes international public bids for contracts and licences to explore, extract and produce hydrocarbons.

As to electricity, the reform to Article 27 of the Mexican Constitution makes possible private participation in the production while the Mexican State continues to maintain control over transmission and distribution networks so as to grant access to different producers to essential facilities in energy like pipelines, transmission and distribution grids. Moreover, joint investments between government and private investors will be possible for transmission and distribution projects.

The Ministry of Energy (SE), the Regulatory Commission of Energy (CRE), National Commission of Hydrocarbon (CNH) and state-owned firms such as Federal Commission of Electricity (CFE) and PEMEX (Mexican Petroleum) have been the institutions with the responsibilities to promote and regulate the industry. The reform however, modified their institutional arrangements, according to the following:

- The SE is the head of the energy sector and its main responsibilities are policy planning and the selection of geographical areas in which government can establish contracts with private investors. It will also be in charge of the enactment of operational rules for the electric market and of the approval of expansion projects for the national transmission network.

- PEMEX and the CFE remain state-owned firms but it is planned to grant them more independence. In no more than two years after the publication of the reform in the Official Gazette, both firms must move to a legal condition labelled as “State Productive Firms”. According to the Law of Mexican Petroleum (LP) and Law of the Federal Electricity Commission, both organizations own their assets and possess technical, operative and administrative autonomy.

- The CNH is as now a coordinated regulatory institution with technical, operative and management autonomy (Article 3 of the Law on Energy Coordinated Regulators). These institutions will be able to administrate their income coming from the service they provide. The CNH will be in charge to provide technical advice to the SE and to support the design of oil and gas contracts for exploration and extraction.

- The CRE as a coordinated regulatory institution has the same institutional arrangements as the CNH. It will be in charge of transportation regulation, storage and distribution of natural gas and oil. It will establish and monitor the quality of the energy supply.
II. THE RELEVANCE TO DESIGN AN EFFECTIVE TRANSPORT REGULATOR

and will grant energy generation concessions. Both, the CNH and CRE have to coordinate with SENER and other public institutions to undertake the duties they have been assigned.

- The National Centre to control Natural Gas (CNCGN) will be a decentralized agency in charge of the administration of the duct network and the storage of natural gas.
- The National Centre of Energy will be the central operator of the energy transmission network which will be independent of private and public operators.
- The National Agency of Industrial Safety and Environmental Protection (ANSIPMA) will be a decentralized institution designated to establish the regulatory policy and the international security standards in order to minimize the environmental damages produced by the oil industry. In order to do that, the reform stipulates that it will have technical, management and financial autonomy.

The scope of energy, telecommunications and competition reforms illustrates the current commitment of the government to improve the regulatory framework of regulated markets and their competition environment. This commitment is aimed at developing a regulatory framework with the perspective of efficiency, transparency and effectiveness. Taking advantage of this momentum, the national government should undertake an integral policy to design suitable regulators in the transport sector. The federal government in fact has started some changes in transportation; for instance, it has created the Federal Agency of Civil Aviation and the Regulatory Agency of Rail Transport. A regulatory body for road and maritime transportation is still pending. There is also a project by means of a Presidential Decree that has established the creation of a deconcentrated body within the SCT in charge of investigating the transport-related accidents. In any case, the present document will assess the current institutional arrangement of the newly created civil aviation and rail transport regulatory bodies with the objective to offer recommendations to improve their design.
III. The OECD principles of regulatory governance of regulators

This chapter presents the OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators which are employed to assess the institutional setting and performance of the Mexican transport regulators. These principles provide governments with a guide to consider when establishing or reforming regulatory agencies and regimes, and at the same time they offer regulators advice on how to evaluate and improve the governance arrangements to become more effective.

Over the past three decades, the OECD has built standard international principles for good regulatory practices. These principles are intended to improve institutional arrangements so as to improve the regulator’s governance and the effectiveness in the overall regulatory system. These principles are aimed at all the key actors within the domain of regulation such as:

- Government and legislators
- Judiciary power
- Regulated entities or actors
- Public
- Regulators

A high quality regulatory environment is an essential foundation for all nations to be an enjoyable and prosperous place to live, work, and do business, while protecting the environment and all parts of society. High performing regulators play a key role in achieving these outcomes while also encouraging innovation and fostering productivity and growth.
Good regulatory outcomes depend on more than well-designed rules and regulations. This was recognised in the OECD’s *Recommendation of the Council on Regulatory Policy and Governance* (OECD, 2012) which recommended that countries: “Develop a consistent policy covering the role and functions of regulatory agencies in order to provide greater confidence that regulatory decisions are made on an objective, impartial and consistent basis, without conflict of interest, bias or improper influence.” (p. 4)

The *OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators*, is intended to assist countries in developing such a policy. It seeks to construct an overarching framework to support initiatives to drive further performance improvements across regulatory systems in relation to national regulatory bodies or agencies (regulators).

In order to accomplish the objective to expand positive outcomes from regulatory actions cooperative efforts between governments, regulators, regulated entities and the community are required. Therefore, regulators’ governance arrangements must induce and foster cooperative efforts to build the legitimacy of any enforcement action. Consequently, governance arrangements must ensure the efficient achievement of policy objectives and the public confidence of the regulator managers.

The *OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators* provide governments with a guide to consider when establishing or reforming regulatory agencies and regimes, and at the same time they offer regulators advice on how to evaluate and improve the governance arrangements to become more effective. Moreover, the principles also provide a framework for the OECD and other organisations to assess and review the current structure of regulatory agencies and address practical questions on how to deal with different country contexts. The principles are the following:

1. Role clarity
2. Preventing under influence and maintaining trust
3. Decision making and governing body structure for independent regulators
4. Accountability and transparency
5. Engagement
6. Funding
7. Performance evaluation

This set of principles for the governance of regulators has drawn upon an extensive consultation process that has included the views of regulators from the OECD Network of Economic Regulators¹, Government delegates from the OECD Regulatory Policy Committee² and other OECD Committees, academic and industry experts³.

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¹ On 20 September 2013, the Executive Committee of the OECD formally approved the creation of the Network of Economic Regulators (NER) as a subsidiary body of the Regulatory Policy Committee (RPC). The NER is a platform composed of economic regulators from various sectors from OECD and non-OECD countries to provide an expert forum that can support the RPC in respect to issues material to the successful delivery of economic regulation by OECD and non Member countries.

² The Regulatory Policy Committee (RPC) was created by the OECD Council on 22 October 2009 to assist member and non-member economies in building and strengthening their regulatory reform efforts. It is a platform to help countries adapt regulatory policies, tools and institutions, learning from each other’s experience. The Regulatory Policy Division in the OECD serves as the Secretariat of the RPC and carries out the work programme of the RPC.

³ The initial draft of the principles was discussed at the ad hoc meeting of the Network of Economic Regulators
The following descriptions of each role are an extract of the *OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators* (2014).

**Role clarity**

The role clarity principle is a key-stone for a regulator because it helps to understand and fulfil its role effectively and accurately. This principle suggests that the role of any regulator must be (clearly) defined in terms of its objectives, functions and agreements or relationships with other public or private entities. These should be clear for the regulator and those under the scope of the regulation as regulated bodies, citizens and stakeholders.

Role clarity is necessary to organize and conduct actions under the regulatory framework and to achieve the well-functioning of the regulation. Unless clear objectives are specified, the regulator may not have sufficient context or guidance to establish priorities, processes and boundaries for its work. In this context, going beneath or beyond faculties is not efficient. Clear objectives, on the other hand, are needed to promote trust and transparent relationships between regulators and regulated entities—it is important that regulated entities are confident that the regulator will be accountable for its performance.

In order to fulfil the role clarity principle, a regulator needs to take into account the following:

- If the objectives established in the legislation were set strategically broad, then it is important to institutionalize other principles for the regulator to ensure capability in the structure to manage discretion.

- Regulators should be afforded with the appropriate powers to deliver their objectives. These powers should be sufficient to discharge their responsibilities and activities.

- Actions of the regulator should remain within the scope defined by the legislation. In order to insure it, the regulator has to be monitored in open, transparent and accountable processes and be penalized when it goes beyond its legitimately intended powers.

- The regulators’ functions need to be established in a way that they complement each other, and avoid potential conflict between them. The performance of any function should never limit or compromise the ability to fulfil other regulators’ function.

- Regulatory agencies have limited staff and financial resources. Thus, there will always be competition when prioritising functions. However, in order to ensure that obligations to promote regulatory compliance are focused, the rationale and evidence...
behind regulators’ decisions should be clearly set out in the regulator’s business plan—including demonstrated links to the objectives.

- To reduce overlap and regulatory burdens, regulators should be explicitly empowered and required to cooperate with other bodies. The instruments for coordination between entities, such as formal agreements or contracts should be published in the interest of transparency.

Finally, the role clarity principle also provides a correct framework by which regulators can be evaluated by Congress or supervisors. This is because performance indicators should be defined and computed as the objectives are accurately assigned.

**Preventing undue influence and maintaining trust**

Interaction between regulators and regulated entities should work closely in both directions, from regulators to regulated entities and in the other way around. The first case is evident but in fact, regulators should learn from regulated entities about the industry environment and actors’ behaviour so as to establish better suited regulation.

Most of the times, the regulatory framework design is not an easy task and guidance by industry actors would be valuable. On the other hand, there are incentives from regulated entities to influence regulators to lighten regulation. Thus, preventing undue influence and maintaining trust at the same time is a challenging goal to achieve.

An option in the design of a regulator with the objective to avoid undue influence could be granted (at least partially) through the independence from the Executive Federal. Independence can provide confidence and trust regarding the objectivity, impartiality and consistency of the regulator’s. Of course, independence is not always the unique path to enforce a regulatory framework with positive outcomes. According to the OECD 2012 Recommendations of the Council on Regulatory Governance, independent regulatory agencies should be considered in situations where:

- There is a need to be seen as independent to maintain public confidence in the objectivity and impartiality of decisions.
- Both, government and non-government entities are regulated under the same framework and competitive neutrality is therefore required.
- Decisions of the regulator could have a significant impact on particular interests and there is a need to protect its impartiality.

Following the previous ideas, it is advised that the regulator should be legally independent and have a structurally separate body if any of the following factors are valuable:

- Credible commitments in the long run—an independent regulator can send a message about the government commitment regarding objective and transparent administration.
- Stability—greater distance from political influences is more likely to result in consistent and predictable regulatory decision-making.
- Addressing potential conflicts of interest.
III. THE OECD PRINCIPLES OF REGULATORY GOVERNANCE OF REGULATORS

- Development of regulatory expertise.
  
  To consider if the regulatory decisions would be better suited under the direction of a Ministry, it should be taken into account if some of following situations are present:
  
  - Closely integrated function—the regulatory function must be closely integrated to the Ministry’s activities, which retains the focus of specific knowledge and expertise within government.
  
  - Changing regulatory environment—the environment being regulated is subject to rapid change with policy still being developed.
  
  - Minor function—the regulatory function is incidental to non-regulatory Ministry activities, and creating a separate entity to perform functions or assigning it to an existing independent regulator is not justifiable.

  If an independent regulator reports directly to the legislature, clear procedures and mechanisms for reporting and consultation should be clearly set. When a Minister has been granted with powers to issue specific directions as a regulator, the limits of the regulatory powers should be clearly set out. Any instruction issued should be published in a timely manner on the regulator's website or other accessible source.

  Other important institutional arrangement that protects the regulators’ independence is the provision of terms of appointments of independent board members. Appointing terms and appropriate grounds for board-member removals with distance from any electoral cycle is likely to promote independence from the political process.

Decision making and government body structure for independent regulators

In order to improve the effectiveness and objectivity of the independent regulators decisions, as well as to safeguard its independence, it is necessary to establish an adequate governing body structure. According to the Department of Public Enterprise (2000), there are three main governance structures used:

- Governance Board Model: the board is the main responsible for the oversight, strategic guidance and operational policy of the regulator. In this model, the regulatory decision-making functions are delegated to the chief executive officer and to its staff. It is important to notice that a board implementation contributes to transparency, accountability and reduces the risk of capture.

- Commission Model: in comparison with the Governance Board Model, the board itself makes most substantive regulatory decisions.

- Single Member Regulator: an individual is appointed as regulator and it makes the most substantive regulatory decisions and delegates other decisions to its staff.

When deciding between a multi-member and a single member-decision-making model, the following factors should be taken into account:

- The potential consequences of regulatory decisions (commercial, safety, social, environmental, etc.), including the degree of impact and the probability of occurrence.
For instance, a multi-member-decision-making model is less likely to be captured than an individual, but a group will bring differing perspectives to decisions.

- The diversity of knowledge, experience and perceptions required for informed decision making and the degree of judgement. For instance, collective decision-making provides better balancing of judgement factors and minimises the risks of varying judgements.

- The strategic guidance and oversight of delegated regulatory decisions required to achieve regulatory objectives. Where the regulator requires significant strategic guidance and oversight to achieve its regulatory objectives, a multi-member body can provide collegiate support for such strategic decision-making.

- The problems and importance of maintaining regulatory consistency over time. Where regulatory decisions require a high degree of judgement a multi-member decision making body provides more “corporate memory” over time.

- The importance of decision-making independence of the regulator. A board will be less susceptible to political or industry influence than a single decision-maker.

It is important to note that there are many options to design institutional arrangements for regulators which have different implications. For example, where a multi-member decision-making body is chosen and a collegiate decision-making is not required, decisions could be divided among the decision-making body members (or sub-committees) with particular jurisdictions or specialist expertise.

In the same line, the governing body of a structurally independent regulator must be separated from inappropriate stakeholders, ministerial or industry influence so as to support regulatory integrity through objective and impartial decision-making. In order to avoid conflicts of interest where there is a need for formal representation of specific stakeholders in strategic decision making, an engagement mechanism as an advisory or consultative committee should be established.

Also, the appointment of members of the Ministry on the governing body of an independent regulator has the potential to create role conflict, because they are accountable to the minister. Nevertheless, there can be benefits to their participation in the meetings. The potential benefits include: 1) information sharing; 2) more informed decision making by both sides; and 3) better relationships between them. In order to capture these benefits without compromising the regulator's independence, one option is to allow such representatives to participate at meetings in a non-voting capacity and only at the invitation of the regulator.

In a broad sense, it is important to indicate that independency is a matter of how much an institution conducts its duties, tasks and functions by its own directives. Of course there are formal arrangements (legal statutes) which grant technical, administrative or financial independence; but there are also informal arrangements or practices that privilege independence. It is, even if a regulator depends on formal basis, financially and administratively of some body or superior official, independence would be present—it means that the regulator will conduct its duties only on technical basis with no (needed) influence from its supervisor.

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* To review formal and informal arrangement on authority review Aghion and Tirole (1997), Formal and Real Authority in Organizations
III. THE OECD PRINCIPLES OF REGULATORY GOVERNANCE OF REGULATORS

The risk to bias regulator decisions is higher however, with informal arrangements or practices, as they may prevail only on current circumstances or leadership in charge. On what basis such independence may arise under ministries’ umbrellas? It depends of course on the degree of transparency and accountability of the institution, the power and capacity of other institutions to find out and punish misbehaviours, the adoption of institutional measurements based on performance indicators, stakeholder’s engagement, roll clarity in duties and tasks, separation of the political cycle, internal institutional controls, etc. Of course, this independency can be observed on institutions from US and Europe.

**Accountability and transparency**

Accountability and transparency are important elements that could create confidence between stakeholders. Accountability and transparency is a matter of degree, but as far as organizations are more conscious about sharing information, their operation creates confidence. In order to promote confidence on regulatory policies, regulators need to be accountable and transparent to three groups of stakeholders:

1. Ministers and the legislature
2. Regulated entities
3. The public

The regulator exists to achieve objectives deemed by government to be in the public interest and operates using the powers conferred by the legislature. Then, it is accountable to the legislature and should report regularly and publicly the achievement of its objectives and the discharge of its functions. It should also demonstrate that it is efficiently and effectively discharging its responsibilities with integrity, honesty and objectivity (OECD 2012 and Department of Public Enterprise 2000).

On the other hand, the regulator has a responsibility to exercise its powers in a way that increases confidence in the market, it has to assure the rule of law and create trust in the state. At the same time, the regulator is also accountable of the exercises of its powers and the degree of achievement of its policy goals.

Complete disclosure to the public and regulated entities of the regulator’s objectives and policies should contribute to create confidence and understanding about what it is expected from regulators and how their compliance will be monitored, judged and enforced. For instance, as long as a regulator makes transparent its goals, it can be scrutinized by rigorous methods and ex-post evaluations can be conducted. A mechanism to clarify Ministers’ expectations over the performance and behaviour of regulated entities is the subject of a Statement of Expectations and a Corporate Plan. Each Statement of Expectations should outline the most relevant governments’ policies, current objectives and details of the operation strategy. The document should also involve relevant stakeholders because defining expectations will improve the extent of which they can buy-in the regulatory activity and outcomes.

On the other hand, the regulator should outline in the Corporate Plan and the, Statement of Intent, how it proposes to meet the expectations of the government. This document should include key performance indicators agreed with the relevant Minister. Where competing priorities exist within a regulator’s functions for a given objective, the Corporate Plan should
outline a set of prioritising principles. Both, the *Statement of Expectations* and the *Corporate Plan* (including key outcomes, outputs, quality and timeliness performance indicators agreed between the Minister and the regulator), should be published on the regulator's website.

It is relevant that executive and the legislators monitor and review periodically how the regulation system is working and how it is aligned with the intended plan. In order to facilitate this, the regulator should develop a comprehensive and meaningful set of performance indicators. It is also recommended to have external reviews of significant regulatory decisions. External reviews can act as an accountability mechanism and can improve the quality of the regulator's decision-making and internal review processes. The mechanisms for the external review should be timely, transparent and robust. Is advisable that the regulator should outline on its website the process by which regulated entities may seek an external review.

As for the regulated entities, they should have the right of appeal of decisions that have a significant impact on them, preferable through a judicial process. Such right of appeal shall be allowable, on grounds that the regulator has exceeded the powers attributed to it.

**Engagement**

A primary objective of good regulator governance is to enhance public and stakeholder confidence in the regulators' decisions and actions. Effective engagement with regulated parties and other stakeholders helps to achieve this. It is important, though, to inform about the policy-making process and the decisions of the regulator. This can improve the quality and efficiency of the rules and regulations that are implemented and enhance the credibility of the regulatory framework.

Depending on the regulator's functions this engagement may relate to:

- Issues related to individual decisions—where information from stakeholders is necessary to inform a regulatory decision.
- The regulator's operational policies—for example, to better understand community expectations relating to regulatory priorities.
- The potential policy outcomes a regulator might seek to achieve.

Effective engagement is vital to achieve positive regulatory outcomes which are supported by community and regulated entities; there are risks however concerning engagement that need to be managed (Pagliari 2012) because it is crucial not to favour particular interests. The simple appearance that engagement has favoured some interests can compromise the regulator's ability to achieve broader outcomes. An alternative to prevent this situation is an open and transparent consultation. It allows any regulated party or member of the public to contribute and comment on proposals rather than just allow participation of representative groups. It is very important to ensure that all actors as regulated entities have the same channel to express opinions and there is no distinction between them.

In order to engage with stakeholders, some regulators have formal advisory bodies established in legislation or explicit power in the legislation enabling the Minister or the regulator to create formal advisory bodies. These advisory bodies may be helpful to provide insights from industry actors and the community on strategies to influence behaviour or
warning on developments that could create a change in the compliance approach of the regulator. Community or industry engagement may also be useful to inform in the development of the Corporate Plan.

A consultation policy is also a strategy in which the regulator makes the key stakeholders be aware of the regulator’s practices and its expectations. Apart from the mechanisms used, engagement with key stakeholders should be institutionally structured to produce concrete and practical opportunities for dialogue based on achieving active participation and if possible, exchange of empirical data rather than to achieve consensus (Deighton-Smith 2004).

**Funding**

Regulators can be funded mainly by two means: cost-recovery fees or government budget funding. In order to enhance public confidence and efficiency in the regulator’s decisions, it is essential to have clarity and transparency of the financial funding sources and expenses. Clarity about the regulator’s sources and levels of funding is necessary to protect its independence and objectivity. This can be archived by making a disclosure on its annual report about who pays for the regulator’s operations, how much and why (International Monetary Fund 1999), as well as what proportion of its revenue comes from each of these sources. A good practice is that regulator submits to the Minister for approval a Corporate Plan with the proposed expenditure.

When cost-recovery fees contribute to the funding of the regulator, it should be taken into account that:

1. The level of the (cost recovery) fees and the scope of activities associated with fees. It is advisable that the legislature or the Minister sets the fees according to the policy objectives of the government and any cost recovery guidelines.

2. Regulator should be aware that fees increase the overall cost of regulations and because of this, it has to ensure that the new scheme does not impose unnecessary or burdensome costs on regulated entities and create significant compliance costs that cannot be justified through a cost benefit analysis.

3. The scheme and process to determine recovery-fees should be transparent, clear, understandable and accessible to all stakeholders. The regulator should demonstrate the fairness of its operation and to build and maintain the trust of the regulated entities.

Sometimes is not efficient to impose charges to users or there are other justifications not to charge them. In that case, budget funding can be an appropriate mean to fund regulators. Under this scheme, multi-year funding arrangements can contribute to maintain the independence of the regulator by protecting it from budget cuts motivated by political reaction to unpopular decisions (Kelley and Tenenbaum 2004).

In any case, under both schemes; budget funding and cost-recovery fees, financial transparency can reduce: 1) the risks to the regulator’s political and administrative dependence from government; and 2) the over-sensitivity to lobbying against the public interest (Kelley and Tenenbaum 2004). It is recommended that all contracts with third parties should be disclosed and the regulator should be able to demonstrate that all activities funded contribute directly to meeting its policy objectives.
III. THE OECD PRINCIPLES OF REGULATORY GOVERNANCE OF REGULATORS

Performance evaluation

Performance evaluation is important to regulators because it allows them to be aware of the impacts of their actions and decisions. Of course, this helps to conduct policy improvements which rely on internal systems, processes and effectiveness of actions. Performance evaluation can be conducted in different ways, ex-ante, when actions are taking place and ex-post. The selected strategy to conduct performance evaluations, however, has to guarantee that results are spread and that the regulator is open to improve its performance applying short and long run remedies.

A good performance evaluation should take into account:

- The creation of a comprehensive group of meaningful indicators set in line with the objectives and goals expected to achieve. These should incorporate quantifiable aspects of the regulator's activities to assess its performance, as well as the costs it imposes.

- External evaluations should focus on the achievement of the strategic goals of the regulator. In contrast, internal evaluations should focus on the processes and procedures of its overall operations.
IV. The economics of organizations’ architecture

In this chapter the main principles and related literature on the economics of organizations’ architecture are presented and discussed. The purpose is to provide the policy maker with complementary elements to the OECD principles and to present the main elements identified by economic theory which should be taken into account when assessing the institutional design and performance of Mexican transport regulatory bodies.

Regulators and supervisors

The institutional and formal relation between the regulators and its supervisors (Congress, Federal Executive) is relevant since there are potential influences over the performance of the regulated industry. The economic literature has already developed some of the most relevant issues regarding this relationship and it is important to take them into account so as to develop the best regulatory arrangements which will prevent these issues to arise. The economic principles regarding the regulators and supervisors can be found implicitly in some of the OECD principles of regulatory governance of regulators. For instance, the informational issues (moral hazard, adverse selection, free riding) that will be presented in this section work as basis to some of the principles such as Preventing Undue Influence and Maintaining Trust, Decision Making and Governing Body Structure for Independent Regulators, Accountability and Transparency and Performance Evaluation.

In this case, the regulators are the transport institutions and the supervisors would be the Congress or the Executive Federal. One of the most important reasons for Congress or the Executive Federal of a given country to delegate the oversight of specific public activities
is to gain efficiency and specialization. However, even if the establishment of a new regulator generates benefits on efficiency and specialization, the achievement of these objectives comes with some risks identified by economic theory, mainly due to the existence of asymmetric information between parties.

The institutional agreements between Congress or other body with superior authority (called *Principals* in economic theory) which delegate a set of tasks to a regulator (formally named as *Agent*) may involve some situations that would affect negatively the expected results produced by the regulator. For instance, due to asymmetric information between parties, Congress or the Executive Federal are not perfectly able to select the best candidate(s) as head of the regulatory institution, since the former does not know the abilities of the latter—which is usually private information. Another issue arises once the head of the institution has been selected. In this case the problem is now associated with the head’s decisions on the level of effort to exert to achieve the objectives. Generally, the head’s decisions over effort are non-observed actions, which would affect the expected final outcome. Some relevant references and academic works on adverse selection issues (candidate's types) and moral hazard (behaviour of agent) are addressed in Laffont & Martimort (2001), Holmström B. (1979), Akerlof G. (1970), Holmström & Milgrom (1991), etc. It is also advisable to read Freixas, Guesnerie & Tirole (1985) for the Ratchet Effect.

In this context, Congress or the Executive Federal has to include in the architecture of the regulator some institutional arrangements so as to avoid poor candidates to head the institution and prevent non-efficient decisions over the effort set. The first aim is the screening and selections of the candidate's quality to conduct the institution. This issue is called *Adverse Selection* and the main concern to address is the selection of the best suited candidates to join the institution in order to follow the objectives defined by operative and strategic plans.

To tackle the *adverse selection* issue an alternative is a clear, well-defined and accountable selection process based on merits to pick the best qualified candidates to guide the institution. It is necessary to ensure not only that the best qualified candidate is chosen, but also a candidate without links to interest groups which are prone to exert undue influence that could put in risk the attainment of the objectives. This process however would be conditioned by the degree of independence that will be granted to the institution. As long as the regulator holds more technical and operative independency, it is easier to conduct a clear process and make it accountable.

The behaviour based on the effort of the selected candidates is related with an issue defined as *Moral Hazard*, in which supervisors have to insure that the steering of the institution is aligned with the objectives set by the supervisor and the institution is actively pursuing the expected results. This issue is not only related with inaction from the agent, but from the exposure to accept briberies, future jobs, etc. Some behaviour is by nature not verifiable but some remedies could be set so as to have information about these actions. For instance, scrutiny and accountability process could be established in which both principals and societies are involved.

Free riding is also a possible inefficiency issue difficulty to tackle. This issue arises in the context when there is more than one institution in charge of the sector or the regulated entities. Free riding is a situation in which an institution can take advantage of the achieved goals made by another one to reduce its activity and responsibilities. A possible alternative is to
define clearly functions and responsibilities of each institution in order to avoid duplications and free riding situations.

As we can observe, the remedies applied to informational difficulties and externalities are not negligible and may pose challenges in their implementation—as it can reduces the expected effort of the regulator. Such remedies have to be permanent in order to produce positive results, and yet they will be far from perfect. A key stone is to recognize that such issues are always possible to arise and control and surveillance mechanisms are needed. Thus, with continuous supervision, the probability of moral hazard problem, adverse selection and free riding arising can be reduced.

**Multiple supervisors**

Considering a regulator also as a supervisor of a regulated entity (firm), its institutional design can comprise all oversight functions of interest, or they can be separated across several regulators. Thus, a relevant question to ask is whether the establishment of one or more regulators has any incidence in the quality of regulation and whether the probability to fail into regulatory capture increases or decreases. The IFT is a good example which has regulatory and competition functions, which contrasts with the SCT which holds only regulatory functions and COFECE which comprises only competition oversight over transport. Choosing between one or more regulators might bring about some advantages or drawbacks on performance, which is discussed in what follows.

The separation of government attributions has been a key-stone in the theory of constitutional design. Martimort (1996) defined this separation of powers as the multi-principal nature of government. In this sense, each government agency has its own set of incentives. Thus, if there is more than one institution with regulatory functions over the same entity, the agencies’ own incentives may hamper regulatory outcomes. Martimort (1996) and Laffont and Martimort (1999) argue however that such separation of functions or powers is good because it is a signal of the government’s commitment to prevent regulatory capture and avoid discretion of non-benevolent (or well intentioned) regulators.¹

Laffont and Martimort (1999) also stated that separation of regulators divide the information they hold and limits their discretion to engage in wasteful activities. They explained that instead of having one regulator implementing a unique and efficient type of arrangement with the firm, the separation induces a decision-making strategy based on incomplete information of regulators about the other's type—for instance about their decision of accepting or not bribes. Thus, the separation increases the transaction costs of collusive activities and due to this, increases the social welfare but at the cost of coordination problems. It means that, under separation of regulators, firms have to bribe them separately and it would increase the costs for the firm to capture them. However, a drawback is that coordination between regulators over the firm is costly.

It is possible to notice that setting up multiple supervisors helps to prevent regulatory capture and limits wasteful activities; but implies increasing transaction costs and coordination

¹ In brief, a benevolent regulator is such that focuses on the public interest, on the objective it was made for or follow its regulatory framework; and as a consequence, a non-benevolent regulator is such that follows different objectives.
issues among regulators. Regulatory capture is an important issue to prevent, which is aligned with the OECD principle of Preventing Undue Influence and Maintaining Costs. Nonetheless, deciding on whether to focus on regulatory capture or coordination depends on each particular country’s priorities. It does not mean that regulatory capture is a low concern but as long as institutions are strong, the regulatory capture probability is low. For instance, if the probability to find-out, process and punish any act of corruption, the incentives to accept bribes would be low. Thus, as corruption is prevented by many instruments and institutions, coordination would be highlighted.

**Regulatory capture**

Regulatory capture is a situation in which a regulator can subordinate directly or indirectly its decisions to the regulated entities. This implies that the regulator's decisions will not contribute to the objectives for which it was created for. Therefore, the implementation of measures to limit the scope or eliminate this situation is required. As mentioned before, some of the OECD principles of governance of regulators can help to avoid the regulatory capture problem such as the enactment of governance boards, practices on funding, transparency and engagement.

Stigler (1971) introduced the notion of regulatory capture as a situation in which an industry can take advantage of the powers of the state to get private rents. Other authors as Posner (1974), Peltzman (1976) and Becker (1983) introduced the concept of competition between interest groups to get state privileges—meaning that interests groups can contend to influence the regulator's decisions in their favour. Subsequently, Laffont and Tirole (1991) analysed the Chicago School perspective started by Postner and the Virginia School (Tollison and Tullock), concluding that they have two limitations: 1) they ignore informational asymmetries which explain the incentives of firms and the discretion of regulators; and 2) the Chicago and Virginia Schools analyse only from the point of view of the demand side (interest groups), ignoring the institutions.

According to Spiller (2006), two approaches have been developed to address the information issues: the first is the Congressional Dominance, which assumes that Congress instruments are powerful enough to control its regulators, and the Naïve Capture theory which assumes that agency issues are simple enough that regulators can work independently from supervisors—in this case, the informational problems are not as relevant so a supervisor is not needed. Spiller recognizes however that both are extreme situations which are difficult to observe in reality. Martimort (1999) discovered that regulatory agency issues cover a lifecycle because at the early stages of the institutions when legislatures and citizens' interests and oversight are strong, as well as motivation of the regulator is high, the risk of regulatory capture is lower. Once the interests vanish and interaction between regulator and industry increases, the risk of regulatory capture grows.

Regulatory capture is a major subject in the design of a regulatory agency. In broad terms, this involves groups of interests exerting influence on the decisions of the regulator. According to Dal Bó (2006) it represents the process through which special interests affect state intervention in any of its forms, which can include areas as diverse as the setting of taxes, the choice of foreign or monetary policy, or the legislation affecting R&D. Although, the focus has been on “monopolies manipulating states agencies that are supposed to control them”. A design to prevent
regulatory capture, however, should not be applied only to economic regulators, but to every other agency that oversees regulated markets. Examples include topics such as health, trade, regulated industries, security, etc.

The study of this occurrence has three major schools or points of views according to Boehm (2007). The first is the Interest Group Theory which dates back to 1971 when George Stigler published “The theory of economic regulation” and was further developed by the Chicago and the Virginia School. The main insight, as mentioned before, is that regulation may not be created to serve public interest, but rather to create and protect monopolistic rents. In this view the public official has a rather passive role, which contributes to the lobbying capacity of the industry to achieve its purpose of maintain monopolistic benefits. In words of Stigler: “[A] major public resource commonly sought by an industry is control over entry by new rivals”. Stigler (1971) proposes a general hypothesis in which every industry or occupation that has enough political power to utilize the state will seek to control entry. In economic terms, the intend or the incentives of firms and businessman to control Congress or economic regulators would be positively related to the potential gains from exerting monopoly power, since firms will use part of this gains to manage the authorities.

The second school according to Boehm (2007) is centred in the Toll-Booth theories, mainly designed by Soto in 1989 as well as Shleifer and Vishny in 1994 and 1998, which centres in the possibility that politicians and bureaucrats conduct inefficient regulation in order to get benefits from possible rewards (red tape).

The third school was conducted by Jean Jacques Laffont & Jean Tirole (1990 and 1993), which worked on the regulatory capture theory by means of a Principal-Agent Model. In an example used by the authors, they assume the role of a regulator as supervisor of the price and revenue of the industry; and the role of Congress as the supervisor of the regulator’s performance. Assuming asymmetric information between the regulator and Congress, they found possibilities of collusion between the industry and the regulator. In their work, they discuss strategies by the industry to exert its influence on decision makers—Laffont and Tirole (1991):

- Monetary bribes
- Future employment for commissioners and agency staff
- Personal relationships that provide incentives to treat kindly the industry
- The industry may take out pressure over agency’s management
- Indirect transfers to key elected officials who can influence the agency

Laffont & Tirole (1991) argued that these strategies are the tip of the iceberg. Referring to the importance of the institutional arrangement, they said that the hidden and bigger part of the iceberg is the organizational response to prevent collusion, in this case the rules and policies whose raison d’être is the potential for regulatory capture, and their effect on industry performance. Thus, they suggest some insights which can be used in the design of regulatory authorities:

- Reducing the stakes of interest groups coming from regulation will reduce agency politics.
- Regulatory inefficiencies associated with the pressure from several interest groups may compound rather than cancel the capture pressures.
IV. THE ECONOMICS OF ORGANIZATIONS’ ARCHITECTURE

- The interest groups have more power when there is asymmetric information between the regulator and Congress.
- Congress must reward cooperation.
- The agency’s discretion to choose variable levels affecting the interest groups is reduced when the latter are organized.

In general, monetary bribes are thought to be a difficult strategy to apply due to their illegal nature and all the risks involved—but possible. Even with a weak state of law, they tend to carry large transaction costs. A more worrying phenomenon is the concept so called Revolving Doors Effect, which is the transit of employees from the industry to the regulatory agencies and vice versa. In contrast, Dal Bó (2006) summarizes two theoretical hypotheses proposing that transit can improve or harm regulatory performance depending on specific outcomes. The first model, designed by Che in 1995 considers three different specifications:

1. Regulators may invest in human capital during their tenure: technical capital and lobbying capital. If future employment depends on the first, then the productivity of the regulator increases, but if the main reason is the latter, the regulator would be discouraged to acquire expertise.

2. In order to send a signal of intellectual quality and increase the probabilities to be employed by the industry, the regulator could be more aggressive when monitoring the firm.

3. If a firm colludes with the regulator, then negative outcomes in regulatory performance are evident. The positive outcome is achieved when the agreement is broken and the regulator has plenty of information of the firm.

It is easy to notice that regulatory capture is an important issue on institution design. It can arise however in different forms (not only bribes) and the institutional arrangements must take into account this problem to avoid it. Thus, some strategies to Prevent Undue Influence and Maintaining Trust focus on human capital investments (for instance, assuring that officials could have a professional long term plan working for the regulator, avoiding political cycles and paying competitive salaries); but others rely on actions to limit the scope of capture as the establishment of a governing body (rising the number of decision takers increments the cost and the probability to be captured), legal instruments to prevent revolving doors (limiting labour mobility to regulated entities for a certain period of time), monitor public-officials (implementing formal, scheduled or semi-public meetings with stakeholders) and the imposing fines (accordingly with the type of the fault).

**Coordination**

When deciding if a regulator will share some functions with other institutions, it is important to consider that coordination issues would arise and some institutional arrangements must be considered to avoid them. Of course, coordination problems can be reduced with accountability and transparency actions, which is also one of the OECD principles. That is, as long as there is transparency over shared responsibilities, supervisors can monitor if regulatory agencies are accomplishing their activities. On the other hand, accountability of regulators can provide insights about coordination between agencies.
It is common that certain industries are regulated by different agencies, each specializing in different issues. A basic advantage of this architecture is to reduce the probability of the regulatory capture because, as the interest groups face more authorities, it is more difficult to get away with its own interests. Nevertheless a problem of coordination arises when different authorities oversee the same industry. Notice that coordination and duplication is not necessary the same but it is difficult to avoid some degree of overlapping when there are many regulators.

The notion that redundancy depicts a negative connotation is discussed by Landau (1969). He argues that overlapping functions are generally considered a waste of resources. Nonetheless, he sees redundancy as an opportunity to assure the adequate functioning of public policies. Freeman and Rossi (2012) gathered some forms of coordination that agencies in the United States have adopted in order to achieve a well-functioning regulatory process when it is decided to split regulatory functions:

1. **Inter-agency coordination** may come from simple and non-binding relations to more complex joint actions. Agreements on coordination includes:
   a) **Discretionary consultation** refers to the case when the Congress may authorize communication between agencies without a formal requirement
   b) **Mandatory consultation** is a situation in which some statutes require consultation before the agency decides on regulatory actions. Since there are not directions on how the consultation may take form, the coordination remains in discretion of such authorities
   c) **Public Response Requirements** is such that consultation provisions explicitly require the agency publicly respond to the interested agency's suggestions
   d) **Default Position Requirements** is when the Congress makes the interested agency's suggestions the default position. In this case, the action agency may deviate only by showing that adherence to such suggestions would interfere with the action agency's legal duties
   e) **Concurrence Requirements** are differentiated by three forms:
      i. One agency may set baseline regulatory standards from which another agency may not deviate
      ii. An agency may need explicit approval of another agency before reaching a final regulatory decision
      iii. Congress may assign joint responsibility in which the agencies may veto each other until reaching a mutual decision

2. **Inter-agency agreements** are usually made with memoranda. Although the detail of the agreement can be highly specific, the drawback is that they are not enforceable by court, so good will of both parties is expected. Because it does not exists a mediator for agencies’ agreements, asymmetric information problems may arise. The most common reasons to design an agreement are the following:
   a) Delineating jurisdictional lines
   b) Establishing procedures for information sharing and production
c) Agreeing to collaborate in a common mission

d) Coordination reviews or approvals when more than one agency has authority to act

e) Agreeing in substantive policy

3. **Joint policy making** by which two agencies would work together to achieve a unique public policy through statements and guidelines. Nevertheless, the most common way is to perform joint rule-making, which involves at least two agencies working together on the regulatory subject. The initiative to work together may arise either by designation of Congress or by negotiation with agencies.

4. **Presidential management of coordination** can coordinate with agency officials, either voluntarily or by request as in the USA. There is a limit on the presidential legal authority to coordinate regulation, giving certain degree of independence to different regulatory agencies. Two forms of coordination may be conducted in the following ways:

*Policy Offices and Councils:* the President may create a Council in which different agencies overseeing the same subject interact in order to harmonize public policies.

*Regulatory Review:* By means of an executive order, the President may review agency regulatory actions for consistency with presidential priorities, statutory mandates and other agencies’ rules.

With these practices, regulators can reduce coordination problems and boost their performance. Therefore, when deciding an institutional design, it is important to choose between the most appropriate institutional arrangements. In other countries, regulatory decisions can go through other proceedings as courts, which can reduce the probability of capture—if we consider that courts can be viewed as a second principal. However, the present document does not consider recommendations to include supervisors as courts.
The design of transport regulators across OECD countries varies according to the mode of transportation, and also according to the specific institutional arrangements. Regulators can take the form of public or public-private organizations, decentralized bodies or autonomous institutions. The design of the organization on each country influences the governance arrangements with other bodies and stakeholders and in consequence, it has an impact on the performance of the regulator and its impact on the objectives to be achieved. Notwithstanding the differences between regulators, the objective of the section, which follows Niemeier (2010), is to answer the following questions:

1. Which institutions meet the public policy objectives?
2. How can an institution be more effective?

These questions will be attempted to be answered by analysing the relationship between regulators and stakeholders, the institutional arrangements and practices across institutions. In what follows, some specific examples for regulators from Australia, Canada, USA, and the UK on each mode of transportation are presented and examined.
Air transport

According to Niemeier (2010), regulatory frameworks and instruments on air transport across OECD countries adopt different forms such as spot markets, private contracts, concessions, discretionary regulation, public enterprises and hybrid agreements. This suggests that the regulatory approach is defined so as to tackle the challenges set by the industry organization. Independently of the institution design however, the regulator should be able to influence actor's behaviour to achieve the objectives it was created for, but only in the areas for which economics challenges are identified or where there are relevant informational problems. Niemeier draws a map of the value chain of the industry, in order to observe the points where the regulators may focus. See Figure 1

Figure 3. Value Chain of the Air Industry

From this map, it is possible to observe where the main economic challenges lie. For instance;

1. Airports are the main facilities of the industry. Evidence regarding the nature of the natural monopoly condition on airports is not conclusive\(^1\). However, inside these facilities there may be some economic issues. For instance, slots which define the times by which an aircraft can land or take-off. Thus, regulation over slots is a common practice in many OECD countries.

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\(^1\) In a simple way, a single-product natural monopoly is a condition by which is less costly to produce any good by one firm than two (subadditivity of the cost function) for any level of output (economies of scale) and technologies availables. For a multiproduct monopolist, the definition can be extended if it is less costly produce two or more products by one firm than two or more (economies of scope) and for a wide range of production (economies of scale). For formal definitions and development of the concepts see Joskow (2006), Panzar and Willig (1977) and Baumol (1977).
2. Air Traffic Control Services (TCS) are considered a natural monopoly because they manage aircrafts from the gate until the flight—inside certain airport area. Thus, a complete control of the operations from just one entity is needed.

Ground Handling Services (GHS). In this case, there is a mixture of possible market organizations; GHS can be vertically integrated with airlines, airports or being provided by third parties. If GHS are provided by airports or airlines, there would be competition between vertically integrated-firms. If there is only one firm providing GHS and it is integrated, it can favour a monopoly positions if entry on GHS is restricted. Of course, there could be more configurations and regulation would favour competition or limit monopoly power.

These economic features which are originated by the industry organization generate economic concerns that should be tackled by the regulator. There are other concerns however, which emanate from the Department or Ministry of Transport’s activities. This is the case of the establishment of bilateral agreements over routes and concessions to provide flight services, which can create restrictions over market conditions or barriers to entry. Finally, there are also concerns over safety, security and quality (measured by time and logistics) which should also be addressed. The OECD evidence shows that in many cases these issues are addressed by a national regulator such as the Federal Aviation Administration of the USA (FAA) or by specialized international bodies such as the International Civil Aviation Organization (ICAO).

For the European market, the Directive 2009/12/EC of the European Parliament and of the Council on airport charges, states that every Member State should establish an independent supervisory authority with the resources to perform its tasks—staff, expertise, and financial means. But as Niemeier (2010) states, the level of independency indicated in the Directive is ambiguous and still, there are government regulators across member states which would create conflicts of interests when officials have a role in the board of airports and at the same time, they are staff in the government, which is partially owner of the airport. Thus, an independent regulator is needed so as to limit such a conflict and avoid regulatory capture. Independence limits regulatory capture from government but it has less impact on capture from firms and the public. On the contrary, the major impact over capture from firms and public is transparency and accountability.

This problem can also be observed in the Mexican context. Airport tariffs in Mexico are set by airport firms which are owned by federal government and the approval of these tariffs is cleared by the Ministry of Treasury and Public Credit (SHCP). This is the case of GACM, a federal government firm which holds 100% (minus one share) of the airport firm that manages the Mexico City Airport.

In order to deal with standard problems in the air industry, it is worth to revise some relevant examples of air regulators. This is the case of the United Kingdom and Australia. The objective is to find good practices regarding the institutional architecture and to analyse how the OECD Principles of Regulators are reflected in the local institutional designs and the institutional arrangements. This analysis in summarized in Table 11.

Role clarity is the first governance principle of regulators. This principle is reflected in the declaration Acts of the Federal Aviation Administration (FAA) of the United States, in the Civil Aviation Safety Authority (CASA) of Australia, and the Civil Aviation Authority (CAA) of the United Kingdom. These documents indicate relevant definitions, policy objectives, powers, staff
and their functions so as to have legal instruments to conduct regulatory oversight activities on each country. A precise function statement is a key stone to conduct effective regulation. Thus, it is important to mention that in these examples, the declaration Acts focus only on regulatory matters (economic, technical and safety and security), excluding the industry promotion\(^2\), which can be in certain way, contrary to the objectives of regulation. Clear statements and role clarity help regulators in the implementation of performance indicators, and as a result, supervisors are able to evaluate the performance of the institution.

An important element in the role clarity principle is the establishment of the relationships with other governmental agencies and the clear definition of responsibilities. As an example, the Federal Aviation Act of the USA indicates the interaction of the FAA with other agencies such as the President of the United States, the Department of State and the Weather Bureau.

\(^2\) In the current document, industry promotion refers to all activities or policies with the objective to develop and boost any industry. Thus, when we claim that promotion would have contrary objectives to regulation we state that some policies are settled to attract investment (for instance in the rail industry as an example) and once the industry has been realized, regulation restricts the possible profits of the industry. It is clear that regulation would promote investment but in this case we separate industry promotion to control regulation devise.
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<th>Role clarity</th>
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<tr>
<td><strong>Federal Aviation Administration (FAA)</strong></td>
<td><strong>Civil Aviation Safety Authority (CASA)</strong></td>
<td><strong>Civil Aviation Authority (CAA)</strong></td>
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<tr>
<td>United States</td>
<td>Australia</td>
<td>United Kingdom</td>
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<td>The Federal Aviation Act (1958) defines five policy lines: 1. Regulation of commercial airlines 2. Promotion and development of civil aeronautics. 3. Control of air space in the USA and the regulation of both civil and military operations. 4. R&amp;D in air navigation facilities and installation and operation thereof. 5. Development and operation of common systems of air traffic control and navigation.</td>
<td>The Civil Aviation Act (1988) outlines the functions of CASA: 1. To implement safety regulation. 2. To implement Australia New Zealand Aviation (ANZA) mutual agreements. 3. Functions conferred to CASA in other acts.</td>
<td>According to the Civil Aviation Act, the CAA has the following roles (mainly): 1. Enhancing aviation safety performance by pursuing targeted and continuous improvements in systems, culture, processes and capability. 2. Improving choice and value for aviation consumers now and in the future by promoting competitive markets, contributing to consumers' ability to make informed decisions and protecting them where appropriate. 3. Improving environmental performance through more efficient use of airspace and make an efficient contribution to reducing the aviation industry’s environmental impacts. 4. Ensuring that the CAA is an efficient and effective organisation which meets Better Regulation principles.</td>
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<th>Preventing undue influence and maintaining trust</th>
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<td>The FAA Act establishes: The Administrator shall be responsible for the exercise of all powers and the discharge of all duties of the Agency, and shall have authority and control over all personnel and activities thereof. In the exercise of his duties and the discharge of his responsibilities under his Act, the Administrator shall not submit his decisions for the approval of, nor be bound by the decisions or recommendations of, any committee, board, or other organization created by Executive order.</td>
<td>The Civil Aviation Act states: The Director must not engage in paid employment outside the duties of the office without consent of the Board.</td>
<td>Funding comes from charges on those regulated by it, with no funds received by the government. This helps the regulator have considerable amount of independence since it has no monetary incentives to allow pressure from the government.</td>
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<th>Decision making and governing body structure for independent regulators</th>
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<td>The President appoints the Administrator and Deputy Administrator, with consent of the Senate (Department for Transportation Act 1966) The qualifications of Administrator and Deputy Administrator are (Federal Aviation Act 1958): 1. Citizen of the U.S. 2. Civilian and experience in the field directly related to aviation. 3. No pecuniary interest in or own any stocks or bonds of any aeronautical enterprise or shall engage in any other business vocation or employment.</td>
<td>The Minister for Infrastructure and Regional Development appoints a Board which has up to six members, this Board appoints the Director, who oversees the operative functions. According to the Civil Aviation Act, a Board Member must not engage in any paid employment that in the Minister’s opinion conflicts with the proper performance of its duties.</td>
<td>The CAA is governed by a Board, which is appointed by the Secretary of State for Transport. The Board then appoints the Chief Executive.</td>
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| **Federal Aviation Administration (FAA)**  
**United States** | **Civil Aviation Safety Authority (CASA)**  
**Australia** | **Civil Aviation Authority (CAA)**  
**United Kingdom** |
|---|---|---|
| The FAA publishes an annual report that includes the following subjects:  
1.  Management’s Discussion and Analysis  
2.  Performance results  
3.  Financial Results | CASA publishes an Annual Report which includes the following subjects:  
1.  Performance reporting  
2.  Corporate governance and management  
3.  Accountability issues (purchasing, advertising, sponsorships, grants, consultancy services, insurance and indemnities)  
4.  Financial statements | The Annual Report & Accounts published by the CAA includes the following:  
1.  Business Model  
2.  Efficiency Report  
3.  Performance Indicators  
4.  Risks and Uncertainties  
5.  Financial Review  
6.  Corporate Governance  
7.  Reports of: Audit Committee, Nominations Committee, Remuneration Committee  
8.  Statement of Board Member's responsibilities  
9.  Independent auditor’s report  
10.  Financial Statements, Income Statement, Balance Sheets |

**Accountability and transparency**

Engagement  
There are committees regarding numerous topics with members of the FAA and the aviation community; public notes of the committee are available on the FAA website.  
The Civil Aviation Act mandates that CASA: “...must, where appropriate, consult with government, commercial, industrial, consumer and other relevant bodies and organizations”  
The CAA has an open consultation policy when there are changes in the legislation, new policies and they start impact assessments.

Funding  
Budget is approved by the Department of Transport, which forms part of the overall budget request by the Department and approved by the President.  
CASA receives its budget from the Ministry of Finance, which can give directions as to the amounts in which, and the times at which, the money is to be paid.  
The entire funding comes from the charges of its regulatory activities. The Government does not give any financial support.
<table>
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<tr>
<th>Performance evaluation</th>
<th>Federal Aviation Administration (FAA) United States</th>
<th>Civil Aviation Safety Authority (CASA) Australia</th>
<th>Civil Aviation Authority (CAA) United Kingdom</th>
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<td>The Annual Performance and Accountability Report include 14 specific measurable goals on:</td>
<td>In the annual report, CASA includes a performance chapter which includes three broad goals in a qualitative manner:</td>
<td>The Board is subject to an external evaluation process once every three years, with a self-assessment evaluation undertaken in the intervening years.</td>
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<td></td>
<td>• Safety</td>
<td>• Comprehensive, consistent and effective regulation to enhance aviation safety</td>
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<td></td>
<td>• Workplace Conditions</td>
<td>• Good governance and continuous improvement of organizational efficacy</td>
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<td></td>
<td>• Innovation</td>
<td>• Effective and appropriate relationships with the wider aviation community</td>
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<td>• Sustaining the Future</td>
<td>• These goals are divided in strategies and these in indicatives, which are categorized in three results:</td>
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<td></td>
<td></td>
<td>1. Ongoing/Completed</td>
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<td>2. Substantially completed/Issues being managed</td>
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<td>3. Delayed</td>
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<td>Besides, CASA conducts quantitative performance based on the following indicators:</td>
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<td>• Number of accidents per hours flown, by industry sector</td>
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<td>• Number of incidents per hours flown, by industry sector</td>
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The OECD principle regarding the prevention of undue influence and trust are reflected in the responsibilities and limitations of the administrator stated in the aviation acts. The FAA indicates that the administrator is the responsible for the conferred powers and that his decisions cannot be influenced by committees, boards and even institutions belonging to the Executive order. In Australia, the administrator cannot hold paid employments out of the duties of the office without approval of the board. In the United Kingdom, the funding scheme helps to limit the influence of the government. A key element to prevent influence however, is institutional capacity. It implies that a supervisor does not only need functions stated in the law to fine a supervisee if they misbehave, it also requires power to enforce law and the capacity to find out if personnel are captured in any way. This supervision has to be permanent because the influence (from the regulated entities, the public and the executive) can arise at any moment.

The organization and the structure of the regulator's body are indicated in different legal instruments across countries. It stands out that the air regulators from USA, Australia, and the UK have instituted a board as a major governing body. For instance, the Department of Transportation Act of the USA (1966) indicates the process by which the administrator is elected, and the Federal Aviation Act states the powers of the board and the process to be appointed as a member—for instance, that political parties cannot have more than 3 (from 5) representatives in the board, and the President shall select annually the chairman and the vice chairman. For CASA in Australia, the Civil Aviation Act indicates that the board is composed by six members appointed by the Minister, who has to consider a balance between professional expertise and the representation of aviation sectors. The implementation of a board has a significant influence in the institution and to the extent that the board has more technical capabilities, the institutions can perform better. If we make a map of governing bodies across transport regulators (and other types), we can observe that they varies in all forms. However, the organization of the regulators' directive can be a tool to reduce the probability of capture when the regulator becomes independent. It is, as long as the regulator is part of a bigger institution, the risk to be capture from external forces can be compensated and a single head combined with transparency and accountability would be enough—bigger institutions are less prone to be captured. Instead, if the regulator becomes independent, a collegiate governing body may be more relevant to reduce possibilities of capture as the probability of capture reduces with the number of people involved. As an example, in Mexico, the IFT and COFECE which now are autonomous bodies with collegiate governing bodies, they have split functions and responsibilities vertically inside the institution, getting along with many supervisors inside one institution.

The principles of transparency and accountability are reflected in the obligations that each regulator has to accomplish. Besides having the regulators complying with transparency and accountability objectives, another key element is the commitment from Congress and the executive federal to request more information to be published. Thus, a desirable objective is that any regulator should go beyond the minimum requirements of transparency and accountability. It is important to mention that transparency and accountability promotes confidence and help to avoid regulatory capture. For air regulators in the US, the UK and Australia, they publish a transparency and performance report which includes financial statistics.

A desirable practice of country-regulators is the establishment of communication channels with the industry and other stakeholders. These communications channels are not
V. PRACTICES FOR TRANSPORT REGULATORS ACROSS OECD COUNTRIES

necessarily formal; they could be set as regular meetings to discuss important topics at hand. It is worth to mention that formal communication is always desirable because informal activities would create distrust over regulator’s decisions. As an example, the FAA conducts different committees with a diversity of topics; CASA is requested when possible, to consult decisions with government, consumers and other bodies. Finally, the CAA in the UK undertakes an open consultation policy when there are changes in legislation.

A big impact in the regulator performance has to do with the origin of the resources and the independency to apply them—which has to be aligned with the agency’s objectives and goals. Funding in the USA and in CASA from Australia is placed through the Department of Transport, which creates a link between the parent entity and the regulatory body. This link is a positive contribution when the regulator needs empowerment by the government, or when the regulatory goals are an important element of the Executive Federal agenda—as it was pointed out by the OECD Principles of Governance. The CAA in contrast, receive its financial resources from its own activity since the governments does not support it in financial terms.

Performance evaluation is one of the most important elements of the institutional design of a regulator. A fundamental approach for ensuring a standardized performance evaluation is the implementation and constant update of indicators that allow tracking the impact on the regulated industry. The normal practice among regulators is to publish a performance evaluation chapter inside an annual report. This is normally sent to Congress, and it can also be made accessible to the general public via the Congress’ website. The indicators usually focus on the agency efficiency as well as some market indicators (e.g. accidents, delays). As regulators have standardized indicators, they may assess improvement or setbacks in specific areas.

The key point for a national authority is to construct indicators which follow international standards but also reflect the national strategy. The objective to track performance of international regulators is to have a point of reference about how the industry is moving through innovations. The tracking of the national agenda allows knowing the progress regarding the national context; of course, each country has specific interests in each industry and it is relevant to follow the path of the industry.

For air transport regulators across OECD countries, the assembly of main indicators helps to ensure quality, safety and economic value. It stands out that practically in all countries, the monitoring of performance indicators regarding safety, measured by fatality rates, risk exposure, among others, is a common task. In the USA, the UK and Australia safety indicators are an essential part of the monitoring strategy. On the contrary, the UK publishes a set of financial indicators, such as the rate of return and the cash balance which are relevant to understand the profits of public investments. In the USA, it is notable the monitoring of indicators regarding topics like workplace of choice, innovation in the industry, sustainable development and international cooperation.

In Australia, besides the monitoring of indicators, it is relevant the tracking of the strategy-actions which are measured and published in the institutional yearbook. These actions include a variety of topics like good governance, linkage with the industry, amongst others.
Civil Aviation Safety Authority (CASA) in Australia

The civil aviation authority in Australia publishes a yearbook which includes a single portfolio outcome: Maximise aviation safety through a regulatory regime, detailed technical material on safety standards, comprehensive aviation industry oversight, risk analysis, industry consultation, education and training.

The yearbook is presented in a friendly format to identify important indicators and data. For instance, it presents a brief counting of regulated entities and financial results; as well as activity indicators regarding licensing, safety CASA videos on YouTube Channel available, audits, social media followers, formalities, etc. A relevant section is such that includes the outcomes not achieved.

The yearbook includes a performance reporting with detailed assessment of CASA’s performance during the year and their links with the corporate goals and portfolio outcome. This section is divided by outcomes, programs, strategies and indicators. For CASA’s goals 2015–16 and 2018–19, such indicators are related with aviation safety regulation, industry oversight, stakeholder engagement, governance and organizational effectiveness, workforce capability and capacity.

As an example, for the initiative 1.5.4. Continuing to develop appropriate data sharing protocols to make more effective use of Australia’s store of aviation safety related information; the measure is the continuation to work with the Australian Transport Bureau and other stakeholders. In the yearbook are published the achievement of such initiative.


Rail transport

According to Seabright et. al. (2003) there are several regulatory regimes in the rail passenger industry. These regimes however, can also be applied and observed in freight. In any case, freight and passenger rail services are part of the same industry and here they are assessed simultaneously. The regimes are the following:

1. Ownership: Privately or publicly owned
2. Integration: Vertically or horizontally disintegrated
3. Price regulation: Freedom to set prices
4. Yardstick regulation: The extent to which operators are regulated
5. Competition for the market: Do operators compete for the exclusive right to operate services on infrastructure for a certain period of time?
6. Competition in the market: Do operators compete by sharing tracks?

An important point from the previous regimes is the integration concept. As mentioned before, rail industries follow two integration models, implying different regulatory efforts. The institutional and governance capacity of regulators however, would face the same challenges, as the objectives to increase economic welfare and preserve safety are the same in both cases.
The first organization is based on a vertically separated business model with one railroad operator for the whole network (normally a public firm) and firms competing for freight services along the network—this is the case of Europe. The second organization is based on a vertically integrated model in which firms have rights on the railroad and the freight services for a specific geographical area with some possibility to access the competitor’s network—this is the model of USA and Mexico.

This is relevant because as in other modes of transportation, there are still some business areas which are considered close to the natural monopoly definition and the regulators have to deal with it. There is still a consensus that railroad administration is a challenge in the industry, and the previously mentioned models were designed to deal with this problem. Economic regulation however, is not the unique concern; technical performance, environmental preservation and interaction with cities are also important elements of the industry organization and the regulators objectives.

Following Seabright et. al. (2003), the following regimes have evolved across countries:

- Privatization, vertical integration, regional disintegration and yardstick regulation (an example is Japan).
- Privatization, vertical integration, regional disintegration and no regulation (examples include USA, Australia and New Zealand). This is also the case of Mexico.
- Privatization, vertical disintegration, regional disintegration, price regulation and competition for the market (UK).
- State ownership, vertical and regional integration, no price regulation, competition for inter-city travel, and competition for the market in suburban travel (Sweden and Germany).
- State ownership (to date), vertical and regional integration, no price regulation but no attempts to introduce competition (France and Spain).

Mexico can be placed in the second regime, with private and vertically integrated firms, but under a regionally disintegrated model with free establishment of prices and exclusive rights over the railroads. This is important because the challenge of the regulatory agency is to design a framework by which competition should be induced between networks, within a framework with low incentives for interconnection, and on the other to maintain incentives for firms to invest and perform at the standards required.

In Table 12 some findings related to the rails regulator’s governance principles stated in the regulation of the United States, the United Kingdom and Canada are presented.
Table 5. Examples of governance arrangements of rail regulators from OECD countries

<table>
<thead>
<tr>
<th>Role clarity</th>
<th>Federal Railroad Administration (FRA) United States</th>
<th>Transportation Agency (CTA) Canada</th>
<th>Office of Rail Regulation (ORR) United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duties of the Administrator (49 US Code / 103):</td>
<td>The regulator has three broad tasks:</td>
<td>The main roles of the ORR are the following:</td>
<td></td>
</tr>
<tr>
<td>Provide assistance to develop State rail plans and needs of the country.</td>
<td>Dispute Resolution</td>
<td>Providing health and safety guidance and conducting research</td>
<td></td>
</tr>
<tr>
<td>Develop a long-range national rail plans in consistency with the State rail plans.</td>
<td>Accessibility</td>
<td>Publishing reports on the rail industry's health and safety performance</td>
<td></td>
</tr>
<tr>
<td>Develop and enhance partnerships with railroad industry.</td>
<td>Economic Regulation</td>
<td>Carrying out inspections to ensure that the train and freight operating companies and Network Rail manage both passenger and occupational health and safety risks appropriately</td>
<td></td>
</tr>
<tr>
<td>Develop intermodal and high-speed rail.</td>
<td></td>
<td>Investigating breaches of health and safety regulation on the railways</td>
<td></td>
</tr>
<tr>
<td>Ensure that programs and initiatives benefit the public.</td>
<td></td>
<td>Taking informal and formal enforcement action, including improvement notices and prosecutions</td>
<td></td>
</tr>
<tr>
<td>Facilitate and coordinate efforts to assist freight and passenger rail carriers, transit agencies and authorities.</td>
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</tbody>
</table>

| Preventing undue influence and maintaining trust | | |
| The President appoints the head of the administration, which helps the institution to have leverage on its policy decisions. | The decisions made by the agency do not depend on any executive branch. | The ORR is a non-ministerial government department, operating with independence from the central government. |
| | | It has a Board consisting of 10 members with appointments up to 5 years made by the Secretary for Transport, which ensures that most of the board is not appointed by the executive in turn. |

<p>| Decision making and governing body structure for independent regulators | | |
| The FRA is an administration within the Department of Transport. The head of the Administration is appointed by the President, with advice and consent of the Senate. | The Agency has a board made up of five full time members, which gives a sense of unbiased decision making process. The CEO and the Chair are head of the organization. | The ORR is governed by a Board, which is appointed by the Secretary of State for Transport. The Board then appoints the Chief Executive. |
| The head must have professional experience in railroad safety, hazardous materials safety or other transportations safety. Nevertheless he reports directly to the Secretary of Transportation. | | |</p>
<table>
<thead>
<tr>
<th>Federal Railroad Administration (FRA) United States</th>
<th>Transportation Agency (CTA) Canada</th>
<th>Office of Rail Regulation (ORR) United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accountability and transparency</strong></td>
<td></td>
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<tr>
<td>An assessment of the progress should be submitted to Congress at the time of the budget request.</td>
<td>The agency makes a report annually which is sent to the House of Commons by conduit of the Minister of Transport. The following matters are included:</td>
<td>The ORR delivers accountability reports to parliamentary committees. The ORR has a three-element program for transparency:</td>
</tr>
<tr>
<td>1. Economic Marketplace and Infrastructure</td>
<td>1. Economic Marketplace and Infrastructure</td>
<td>Maintain and improve data release and reporting program to ensure high quality information is made public on rail finances, performance, usage and safety</td>
</tr>
<tr>
<td>2. Environment</td>
<td>2. Environment</td>
<td>Promoting greater access to and use of RR data by all stakeholders</td>
</tr>
<tr>
<td>3. Safety</td>
<td>3. Safety</td>
<td>Working with the industry to promote greater transparency across the sector.</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td></td>
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</tr>
<tr>
<td>The FRA has an Office of Public Engagement with the following responsibilities:</td>
<td>The agency launched an online web that advertises regulations. Developed a new methodology to determine the cost of capital for federally-regulated railway companies through consultation</td>
<td>The ORR has three categories of consultations:</td>
</tr>
<tr>
<td>1. Correspondence analysis</td>
<td>1. Policy consultations: both open and closed consultations regarding policy are published. Some examples include: reviews of track access contract, code of practice on retail information. Responses to consultations issued by other organisations are also published.</td>
<td>2. Licence consultations: proposals to grant licences or licence exemptions are published.</td>
</tr>
<tr>
<td>2. Control and tracking of correspondence</td>
<td>3. Access consultations: includes consultation about station access, depot access, current track access and track access decisions.</td>
<td></td>
</tr>
<tr>
<td>3. Arrangement of documentation presentation</td>
<td></td>
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</tr>
<tr>
<td>4. Dissemination of written material of varying formats and contents</td>
<td></td>
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<tr>
<td>5. Organization and safe-keeping of official documents and records</td>
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<tr>
<td><strong>Funding</strong></td>
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<tr>
<td>The budget is submitted to the Committee on Transportation and Infrastructure of the House of Representatives by the Secretary at the same time as the President’s budget submission.</td>
<td>The agency is funded by Parliament through an operating expenditures vote.</td>
<td>The funding structure within the years 2012–2013 consisted of:</td>
</tr>
<tr>
<td></td>
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<td>1. 59% from passenger fares (7.7 bn pounds)</td>
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<td>2. 31% from the Westminster, Scottish and Welsh governments (4bn pounds)</td>
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<td></td>
<td></td>
<td>3. 10% came from commercial operations such as stations, shops and car parks (1.3bn pounds)</td>
</tr>
<tr>
<td><strong>Performance evaluation</strong></td>
<td></td>
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</tr>
<tr>
<td>The FRA prepares a quarterly report on performance and service quality including the following aspects:</td>
<td>Each year the agency makes a departmental performance report which include:</td>
<td>The ORR conducts an annual performance evaluation based on nine indicators. These indicators are mainly about ORR efficiency.</td>
</tr>
<tr>
<td>1. Financial</td>
<td>1. Organizational Expenditure Overview</td>
<td></td>
</tr>
<tr>
<td>2. On-time Performance</td>
<td>2. Analysis of Programs</td>
<td></td>
</tr>
<tr>
<td>3. Train Delays</td>
<td>3. Supplementary Information</td>
<td></td>
</tr>
<tr>
<td>4. Other Service Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Public Benefits</td>
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</tr>
</tbody>
</table>

In the US, the Federal Railroad Administration (FRA) is the agency of the Department of Transport in charge of regulatory and industry promotion affairs. The duties of the FRA are indicated in the 49 US Code/103. In this organization type having a well-defined role of the bureau and detailed functions for officials with regulatory and promotion duties is highly important. A scenario in which the regulatory and promotion activities are in separated areas may help to boost effectiveness of both activities. The objective of this is that regulatory and promotion policies do no compete at least at the second-level of the organization. These policies will compete somehow at the upper level; so as to avoid this issue is advisable to set detailed functions, goals and objectives for each—with the respective budget and structure. In fact, in the organization chart of the FRA, regulation and promotion are conducted by different officials at second level: the Associate Administrator for Railroad Safety and the Associate Administrator for Railroad Policy and Development, each with a specialized staff. In contrast, the Office of Rail Regulation of the UK (ORR) is a non-ministerial government agency in charge of the economic and safety regulation of the industry of the UK-ORR does not have promotion duties, just regulation and this separation makes easier to follow their duties as the regulation activities do not compete with those of promotion. For instance, in UK the development of the industry is made by the Department for Transport, which coordinates with 19 agencies, or bodies which include regulators from other modes of transportation and institutions in charge of functions related to transport (standards, safety, licencing, accidents, etc.), as well as police, coastguard, etc. In Canada, the Transportation Agency (CTA), an independent administrative institution of the government that oversees transport regulation for rail, air and maritime sectors. In the words of Transport Canada, it is the ministry that promotes safe and secure transportation systems for all modes—this implies that the regulatory branch of the Ministry is safe and security, which is promoted with partner collaboration in-house and abroad through rulemaking, oversight and outreach activities.

To prevent undue influence from the public and industry, the three agencies have established different governing body-structures and use different powers. In the US, the President appoints the head of the FRA (which must have experience in railroad safety, hazardous materials safety, amongst others skills) with the approval of the Senate and reports directly to the Department of Transport—this structure is supported with political empowerment so as to implement policy decisions. In Canada, decisions of the CTA do not depend on any executive branch, and the level of independence of the agency in the UK helps to prevent influence from the government—the UK agency has established a 10-member committee appointed by the Ministry of Transport up to five years.

Regarding accountability and responsibility, all agencies have to present a detailed report with the activities, goals and tasks they have done during the year. The FRA has to submit a report with the agency progress at the same time of the budget request so as to link the budget with the activity. In Canada, the agency sends a report to the House of Commons and publishes it on the website for public consultation, which is the same situation as in the UK with the parliamentary committees.

The FRA has established an exclusive office of engagement called Office of Public Engagement (OPE) which focus in correspondence and control of official documents. In Canada, the agency has launched a web service to provide and make transparent regulation over advertisement and sets up public consultation for each regulation as it does the ORR in UK.
Financial resources between the three agencies are aligned with the structure design of each agency and other principles as transparency, degree of independence and influence. For instance, in the US and Canada the budget is provided by the respective parliaments, which is a common practice across countries—an important element as mentioned is the link between budget and the performance of the agency, which has to produce more benefits than the maintenance cost of the agency. A novel scheme is the financial structure in the United Kingdom in which the budget comes from the users of the services (59%), governments (31%) and commercial operations (10%). This structure is mainly designed to insure independence and align incentives of the agency to get funds from industry.

Rail indicators in the United States focus on financial and technical aspects as well as quality (time performance, delays, complaints, service interruption, etc.). The USA measures indicators oriented to customer satisfaction such as the Customer Satisfaction Indicator, the number of complaints over personnel, equipment, food and facilities.

In the UK, rail indicators follow technical, quality and administrative data. For instance, the Office of Rail and Road publishes safety indicators like: 1) catastrophic incident risk and worker safety risk; 2) quality indicators like passengers on time, service performance of freight trains, disruption due to engineering works, etc.; and 3) value-for-money indicators like efficiency savings, maintenance efficiency, amongst others. The ORR also publishes administrative indicators related with freedom access requests, general inquiries and complaints prompt payment of suppliers, all which help the institution to promote transparency and accountability.

In Canada, the regulator is more focused on attention in dispute resolutions and communications with the stakeholders.

Road transport

Boylaud & Nicoletti (2001) pointed out that road transportation may have two categories of regulation: 1) traffic and vehicle regulation such as labour, highway coding, carriage of hazardous materials and traffic restrictions; and 2) market operation with access conditions and price regulations.

Traffic and vehicle regulation arises, as in other modes of transportation, due to externalities of the economic activity. For instance, traffic increases pollution, noise, the probability of accidents and damage to public infrastructure. Trucks and trailers interact with cities further than rails or airports, sharing highways and roads for instance, thus, regulation to maintain safety is important.

Road transportation as other modes interacts with different institutions to control passenger and merchandise traffic. For instance, police, customs and road administration, amongst the most relevant. An important difference with air and maritime transportation is that on these modes, main control points are at the terminals (airports and ports) and in road transportation inspections and verifications are not necessarily in terminals. Thus, coordination with other institutions becomes more important. Different regulators across OECD countries usually control the following issues:

- Traffic regulations and licenses,
- Authorization for international road transport,
- Special authorizations for carriage of passengers,
- Weights and dimensions,
- Certificate for carriage of perishable foodstuffs and special equipment to be used for such carriage,
- Documents on veterinary and plant health control,
- Road user charges,
- Technical conditions of motor vehicles,
- Regulations on driving hours and rest periods, and
- Regulations on transport of dangerous good.

In Mexico, the regulator of road transport also controls safety regulations as medical conditions. In other countries there are external supervisors for these topics or they are regulated by the Ministry of Transport.

These items are not all controlled by the Ministry of Transport or the regulator of road transportation. As we can observe in Table 13, different institutions coordinate to control road transport regulation across countries like France, Germany, Belgium, Sweden and the United Kingdom. It stands out that state police contributes to regulatory enforcement; however, in some topics there is coordination between authorities to regulate and inspect.

Table 6. Regulatory powers in transport across OECD countries

<table>
<thead>
<tr>
<th>Item</th>
<th>SP/</th>
<th>LP</th>
<th>C</th>
<th>MT</th>
<th>TA</th>
<th>ATE</th>
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</thead>
<tbody>
<tr>
<td>Traffic regulations and licences</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>GER</td>
<td>UK</td>
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<tr>
<td>Authorization for international road transport</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>GER</td>
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<tr>
<td>Special authorisations for carriage of passengers</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>GER</td>
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<tr>
<td>Weights and dimensions</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>GER</td>
<td></td>
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<tr>
<td>Certificate for carriage of perishable foodstuffs and special equipment to be used for such carriage</td>
<td>FRA</td>
<td>GER*</td>
<td>SWE</td>
<td>FRA</td>
<td></td>
<td></td>
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<tr>
<td>Documents on veterinary and phytosanitary control</td>
<td>FRA</td>
<td>GER*</td>
<td>SWE</td>
<td>FRA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road user charges</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>GER</td>
<td></td>
</tr>
<tr>
<td>Technical conditions of motor vehicles</td>
<td>BEL</td>
<td>FRA</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>SWE</td>
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</table>
### Practices for Transport Regulators Across OECD Countries

<table>
<thead>
<tr>
<th>Item</th>
<th>SP/</th>
<th>LP</th>
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<th>MT</th>
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<th>ATE</th>
<th>OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations on driving hours and rest periods</td>
<td>BEL</td>
<td>UK</td>
<td>BEL</td>
<td>UK</td>
<td>SWE</td>
<td>FRA</td>
<td>BEL</td>
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<td>FRA</td>
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<tr>
<td></td>
<td>GER*</td>
<td>SWE</td>
<td>SWE</td>
<td>SWE</td>
<td>SWE</td>
<td>SWE</td>
<td>SWE</td>
</tr>
</tbody>
</table>

| Regulations on transport of dangerous good | BEL  | UK   | BEL  | UK   | GER  | UK   | BEL  |
|                                          | FRA  | FRA  | FRA  | FRA  | FRA  | FRA  | FRA  |
|                                          | GER* | SWE  | SWE  | SWE  | SWE  | SWE  | SWE  |

Source: Own elaboration based on Road Transport Regulation and Enforcement Bodies. 3rd Edition, 2006. International Road Transport Union.

*ST: State Police; LP Local Police; C: Custom; MT: Ministry of Transport; TA: Transport Agency; ATE: Authorized Technical Expert; OB: Other Bodies.

Regarding economic aspects to be regulated in road transportation, Boylaud & Nicoletti (2001) indicate that liberalization has changed the rules for market access and the way to control it. The scale of this liberalization depends on the country but there some barriers to the market still persist. Access is made through a permit, normally valid for the whole country and with no expiration date. These permits are different for international competitors who have some restrictions as private carriage, backhauling and intermodal operations.

From the countries analysed, it is possible to know that in the USA the role clarity principle suggest that the regulator focuses on safety, research and development, construction, traffic and accident tracking. In the UK, the road transport bureau concentrates in safety, accidents tracking, large scale improvements and the roads maintenance. In Australia, the National Heavy Vehicle Regulator (NHVR) is more concerned with productivity and competitiveness issues.

In the United States, the President appoints the head of the administrator, which provides political empowerment to implement policy decisions. This measure can be used to prevent influence from external institutions or lobbying firms with interest that may go against the public interest, but increases the probability to lessen the public’s confidence in the agency since it is subordinate to the Executive Federal. Under this type of arrangement, it is important to implement some controls to avoid direct influence from internal government actors. In the United Kingdom, the Highway Agency as a public owned corporation charges fees with the possibility to use those resources from customers to cover its expenses. This economic autonomy is more likely to concede a larger independent playing field. The potential to generate own income also benefits the regulatory institutions in other relevant ways. If the budget is controlled by an independent institution, it will be easier to promote long term national policies by avoiding short term political cycles. Furthermore, the institution has more flexibility to invest in more productive projects, such as regular training for inspectors. Nonetheless, given this level of budget self-determination, the budget must be accompanied by a rigorous performance evaluation. A distinctive element regarding funding is found in the UK agency, which receives at least 50% of the budget from its regulatory activities. The FHWA has finished a project to produce a new transport performance report which will be implemented and promises an improvement compared to the evaluations conducted before. The UK produces a report with efficiency measures. In Australia the NHVR is a recently independent body governed by a five-member board. The members of the board are appointed by the Minister, having a three-year period with possibility of re-electing. A financial fund was established as well in order for the NHVR to make investment decisions for their own generated income.
Table 7. Examples of governance arrangements of road transport regulators from OECD countries

<table>
<thead>
<tr>
<th>Role clarity</th>
<th>Federal Highway Administration (FHWA) United States</th>
<th>Highways Agency (Now Highway England) United Kingdom</th>
<th>National Heavy Vehicle Regulator (NHVR) Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>The 49 US Code /104 states that the duties of the Administrator are:</td>
<td>1. Carrying out routine maintenance of roads, structures and technology to make the network safe, serviceable and reliable.</td>
<td>According to the Heavy Vehicle National Law, the functions of the NHVR are:</td>
<td></td>
</tr>
<tr>
<td>1. Highway safety programs</td>
<td>2. Undertaking large scale improvements through a program of major schemes.</td>
<td>1. Reducing compliance burden for business</td>
<td></td>
</tr>
<tr>
<td>2. R&amp;D related to highway design</td>
<td>3. Making sure traffic can flow easily on major roads and motorways.</td>
<td>2. Improving Australia’s international competitiveness</td>
<td></td>
</tr>
<tr>
<td>3. Construction and maintenance</td>
<td>4. Managing and clearing incidents as quickly and safely as possible.</td>
<td>3. Improving safety and productivity</td>
<td></td>
</tr>
<tr>
<td>4. Traffic control devices</td>
<td>5. Setting and maintaining technical standards for roads.</td>
<td>4. Making easier for business to operate across state and territory borders</td>
<td></td>
</tr>
<tr>
<td>5. Identification and surveillance of accident locations</td>
<td></td>
<td>5. Enforcing compliance of the HVNL and collect any applicable fees of charges derived from breaking the law.</td>
<td></td>
</tr>
<tr>
<td>6. Highway-related aspects of pedestrian safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Additional duties and powers prescribed by the Secretary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preventing undue influence and maintaining trust

The FHWA is an administration within the Department of Transport. The head of the Administration is appointed by the President, with advice and consent of the Senate, who must have professional experience in railroad safety, hazardous materials safety or other transportation safety.

The Hiways Agency became a public owned corporation (part owned by the UK government), which are defined as mainly trading market bodies, operating commercially and recovering most of their costs from fees charged to customers. This is expected to bring a high level of independence on its policy and operations.

The regulator has a high degree of independence which is enhanced. If necessary, the board members have to disclose possible conflicts of interest. Moreover, the regulator has a financial fund and charge for regulatory activities, which helps it separate from the political cycles.

Decision making and governing body structure for independent regulators

The head, appointed by the President with the consent of the Senate, reports directly to the Secretary of Transportation.

The Highways Agency reports directly to the Ministry of Transport. The Prime Minister, with the agreement of the Secretary of the State for transport approved the appointment of the Chief Executive.

The NHVR has a governing board that consists of 5 members appointed by the Queensland Minister. The board has to include the members with the following expertise: one with expertise in transportation policy, one with economics, law, accounting, social policy, and one with managing risks to public safety, and one with financial management skills. This board is responsible for deciding the policies of the regulator. A CEO is in charge of conducting the regulator.

Accountability and transparency

An assessment of the progress should be submitted to Congress at the time of the budget request. It also has to report specific information about grants given.

Besides the annual corporate report, the Highways Agency publishes on a monthly basis every expense.

The NHVR publishes an annual report that includes the following subjects: 1) Performance, 2) Corporate governance and management, 3) Financial Statements 4) Purchasing.

Engagement

The FHWA has three activities to engage with the stakeholders involved:
1. National Online Dialogues
2. Pre-Notice of Proposed Rulemaking Targeted Listening Sessions
3. Post-Notice of Proposed Rulemaking Public Comment Sessions

The Highways Agency receives complaints about roads by e-mail, phone or letter, if the issue is not properly addressed the complaint can be made directly to the CEO, then to an independent complaints assessor through the Department of Transport, and finally through a parliamentary Ombudsman.

The NHVR has established a dedicated industry reference forum, as well as four industry operator groups (Agricultural Industry, Crane Industry, National Regulation and Standards) in order to engage with the industry.
<table>
<thead>
<tr>
<th></th>
<th>Federal Highway Administration (FHWA) United States</th>
<th>Highways Agency (Now Highway England) United Kingdom</th>
<th>National Heavy Vehicle Regulator (NHVR) Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funding</strong></td>
<td>The budget request is submitted to the Committee on Transportation and Infrastructure of the House of Representatives by the Secretary at the same time as the President’s budget submission.</td>
<td>At least 50% of the budget is met by income of regulatory activities: although the budget can be met entirely by these fees</td>
<td>As an independent body regulator, the NHVR has the ability to generate own income. Nonetheless the majority of the income is provided by Grant contributions.</td>
</tr>
<tr>
<td><strong>Performance evaluation</strong></td>
<td>The Federal Highway Administration (FHWA) has completed a project to design an ideal transportation performance report that tells transportation stories that matter in a visually compelling way that the target audiences care about.</td>
<td>As a part of the annual report, the Highways Agency publishes an efficiency report</td>
<td>As a part of the annual report, the NHVR publishes a chapter on performance evaluation</td>
</tr>
</tbody>
</table>

The governing structure of the FHWA is designed to be operated by a CEO. The advantage to do so is the practical implementation of policies and the approval of decisions. However, it can raise the probability of regulatory capture if we compare this scheme with a committee, in which more people are involved, and therefore the probability of capture is reduced. It is an equivalent situation as indicated in The economics of organizations' architecture section, when more institutions are more difficult to capture than only one.

Reputation of the CEO is something that can help the institution; for instance the head must have professional experience in safety and hazardous materials. In a broader sense, an objective and transparent selection process must be applied to the selection of the CEO. This will help to avoid adverse selection and suffering from a loss of public confidence or bad policy implementation due to lack of the CEO skills. In any case, it is important to have an accountability mechanism designed to compensate the fact that the governing structure falls into only one person—this mechanism could include declaration of conflict or interest, which contributes to reputation construction. The NHVR has a similar structure of a CEO, but it is accountable directly to the board.

The FHWA submits to Congress an assessment of the progress when requesting the budget, while in the United Kingdom, there is a corporate report and an expenses report which ensure accountability to the public and other stakeholders. In the United Kingdom, the Highways Agency has open channels to receive complaints which have to be cleared otherwise; they will be directed to CEO, an external assessor and the parliament Ombudsman. In the USA, the FHWA has established three activities to engage with stakeholders. The engagement in the NHVR is highly institutionalized. There is an industry reference forum in which the regulator and the industry communicate, as well as four specific industry operator groups. In these groups, specific policy issues are addressed.

Safety and security are indicators with are employed by most of regulators of road transportation—implicitly or explicitly. In this mode of transportation, two new elements which are not necessarily present in the indicators of the other regulator-modes stand out: congestion and infrastructure. Congestion indicators are tracked systematically in the FHWA of the USA and England, and infrastructure conditions is directly tracked by the FHWA and the NHVR of Australia.

In England the focus of indicators revealing or linked with the contribution to economic growth and the environmental impact of transport stands out. In Australia, due to long haulers there are indicators to manage the impact of heavy vehicles over environment, infrastructure and public amenities.

Of course, environmental impact of road transportation is and should be important for any regulator. It is important to take into account that congestion increases the risk of fatalities and environmental damages, which underscores the importance to design indicators that address these issues.
VI. Assessment of the institutional architecture and practices of transport regulators in Mexico

This section contains an assessment of the institutional design of the transport regulators in Mexico as established in the current legal framework. The analysis also cover provisions set in existing proposals of modifications of the legal instruments, such as the draft decree to create a new agency to oversee the regulation in the rail industry. The assessment also includes the current practices of the regulators, which were recorded through detailed interviews with stakeholders. The assessment also compares the institutional architecture and practices of transport regulators in Mexico with OECD principles for regulators.

The legal instruments, in current application or as draft instruments, which were surveyed in order to prepare the assessment in this chapter are:

- Political Constitution of the United States of Mexico (Constitución Política de los Estados Unidos Mexicanos)
- Law on Energy Coordinated Regulators (Ley de los Órganos Reguladores Coordinados en Materia Energetica)
- Federal Law of Administrative Procedure (Ley Federal de Procedimiento Administrativo)
- Federal Law of Telecommunications and Broadcasting and the Law of Public Broadcasting System (Ley Federal de Telecomunicación y Radiodifusión)
VI. ASSESSMENT OF THE INSTITUTIONAL ARCHITECTURE AND PRACTICES OF TRANSPORT REGULATORS IN MEXICO

- Federal Law of Transparency and Public Information Access (Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental)
- Organic Law of Federal Public Administration (Ley Orgánica de la Administración Pública Federal)
- Interior Rules of Procedures of the Ministry of Communications and Transport (Reglamento Interior de la Secretaría de Comunicaciones y Transportes)

The schedule of interviews conducted to prepare the assessment is shown Table 8.

Table 8. Schedule of meetings with stakeholders

<table>
<thead>
<tr>
<th>Date</th>
<th>Office</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb-17-2015</td>
<td>Regulatory Policy</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td>Feb-17-2015</td>
<td>Institutional Affairs</td>
<td>Federal Institute of Telecommunications</td>
</tr>
<tr>
<td></td>
<td>Regulatory Improvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Administration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategic Planning</td>
<td></td>
</tr>
<tr>
<td>Feb-18-2015</td>
<td>General Direction of Railway Transportation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
<tr>
<td>Feb-19-2015</td>
<td>General Direction</td>
<td>National Association of Manufacturers of Buses, Trucks and Tractors (ANPACT)</td>
</tr>
<tr>
<td>Feb-20-2015</td>
<td>General Direction Industry Representatives</td>
<td>Mexican Association of Railways (AMF)</td>
</tr>
<tr>
<td>Feb-24-2015</td>
<td>Former General Director</td>
<td>CANAERO</td>
</tr>
<tr>
<td>Mar-04-2015</td>
<td>General Direction of Federal Transportation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
<tr>
<td>Mar-04-2015</td>
<td>General Direction of Civil Aviation</td>
<td>Ministry of Communication and Transportation</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

**General framework**

The national regulator of transport in Mexico is the Federal Government through the Ministry of Communications and Transport (SCT). According to Article 36 of the Ley Orgánica de la Administración Pública Federal (LOAPF), the SCT has the faculty to regulate technical and economic operation and the obligation to promote the transport industry. In brief, the responsibilities of the SCT in the transport sector indicated in the article 36 of the LOAPF are the following:

- Formulate and conduct transport policies and programs according to the country necessities.
- Regulate and promote airports and air services, ports and water transportation, and the rail system.
- Regulate safety conditions in transportation.
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- Grant concessions and permissions to operate air services, handling port services, maritime services, transport auxiliary services and exploit transport services in federal roads and highways.
- Construct airports, railroads, yards, terminals and port and dragging infrastructure.
- Set the operating technical rules and tariff rules.
- Verify technical operation and establish the requirements of technical personnel in civil aviation, merchant navy and public road transportation.

The official organization chart of the SCT, published in the Reglamento Interior de la Secretaría de Comunicaciones y Transportes indicates that the Deputy Ministry of Transport manages the agenda through specific areas for each mode of transportation: the General Direction of Civil Aviation (DGAC), the General Direction or Rail and Multimodal Transportation (DGTFM); the General Direction of Federal Road Transport (DGAF) and the General Direction of Merchant Navy (DGMM).

As mentioned before, the OECD Best Practices Principles for Regulatory Policy: The Governance of Regulators indicates that such institutional arrangement has advantages when:

1. Regulatory and ministry activities are integrated
2. The regulatory environment changes rapidly and the public policy is still being developed
3. The regulatory functions are incidental to ministries’ activities
4. The size of the sector does not justify a different regulator scheme.

The main disadvantages of this structure lies in the construction of confidence in the regulator as the regulator is linked to political cycles. Also, there could be conflict of interests, and there is also the need to further develop regulatory expertise. Thus, in order to evaluate if the current institutional arrangement for each transport regulator mode is the most efficient to achieve the national transport goals and requirements, it is needed to assess whether their institutional arrangement is consistent with the OECD principles. First, however, it is important to understand the legal framework in which transport regulators interact.

As it was mentioned before, transport regulators in Mexico are part of the Executive Federal administration subordinated to the SCT. This implies that regulators are dependent on budget, agenda and legal capacity from the SCT. As regards to the legal framework, there is a concern which arises when the regulatory and industry promotion responsibilities are joined at the same office, sharing functions, personnel and goals. If both responsibilities belong to the same institution, it would be expected some prioritization of one task over the other—due to preferences of the head, specialization, national context, national strategy goals, etc.

On the other hand, is frequent in public institutions which pursue different goals that individual efforts go in opposite directions; in this case, a hard regulation would restrict entrance, change prices, modify behaviours, increase costs, etc. which would imply barriers of entry and limits to the performance of the industry. This issue is related to the OECD principle of role clarity but it differs in the sense that even if functions regarding promotion and regulation are evidently stated in laws for each administrative area, the problem arises when the decision maker put one topic on top of the other. For instance, it would be the case that promotion activities have more importance in the agenda than regulatory ones.
An important issue in regulatory offices is the capacity to enforce regulation, impose fines, sanctions and terminate contracts and permissions when regulated firms or individuals have not accomplished the regulation. That is, to have the capacity and will to carry the regulation to the last stage. Otherwise, the regulation will be ineffective. It is important to consider that the effectiveness of the regulator should be reflected in performance evaluations, which is the last OECD Principle of Regulatory Governance of Regulators. Thus, regulation enforcement is one of the conditions to assess these principles.

In this respect, the Reglamento Interior of the SCT states in the Article 10, Fraction V that Chiefs of Units and General Directors have the duty to adopt the necessary procedures to make laws, rules, decrees, agreements and other regulation to be followed. The article assigns the responsibility to prevent breaches and impose fines when it is necessary. The specific laws and Reglamentos for rail, airports, air and road transportation indicates the circumstances which are subject to be fined and the size of the fine, normally expressed in monthly minimum salaries. Alternatively, the procedure and type of fines imposed by the Executive Federal is stated in the Ley Federal de Procedimiento Administrativo (Federal Law of Administrative Procedures, LFPA), articles 70, 70-A, and 71-78. As it can be observed, the federal laws and rules have the basic framework to make regulation applicable. Now it is needed to be reported if these duties are being developed and what the effects are.

A reform regarding the investigation of accidents was published through a Presidential Decree. The Decree created the Federal Agency of Transport related to Accidents Investigation as a de-concentrated body within the SCT. The two broad objectives of said agency are to investigate the accidents related with transportation, and to propose preventive measures to reduce the likelihood of future accidents. The governing body is composed by five commissioners selected by the President in a staggered way so as to avoid possible bias for the administration in turn. Furthermore, these commissioners must have experience on transportation related matters. The drawback is that the opinions, decisions or any other policy outcome from the agency are non-binding.

Transparency is another priority issue which has a big impact in the performance of any regulator. The OECD principle of Accountability and Transparency dwells on this matter, and for the case of Mexico the Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental (Federal Law of Transparency and Governmental Public Information Access) establishes the obligations on transparency by Congress, the autonomous bodies and any federal institution in Mexico. The Article 7 of the Law enlists all the information that has to be published with exemption of the information labelled as confidential or reserved. In the same article, it is specified that information has to be published not only in a way that facilitates people’s usage and comprehension but to assure quality, certainty, opportunity and reliability. So as to guarantee the promotion of transparency, to exert the right to information access and to solve controversies concerning information request, the government have a specific institute in charge of information access and data protection, which is the Federal Institute for Access to Information and Data Protection.

Transparency practices of the SCT, that follow all the Federal Executive, are aligned with the OECD principles, as there is a proper authority (INAI) through which the public may ask for information. The obligations to made public information of the SCT, which also applies to all transport regulators, include the following topics:
VI. ASSESSMENT OF THE INSTITUTIONAL ARCHITECTURE AND PRACTICES OF TRANSPORT REGULATORS IN MEXICO

1. Organization chart and responsibilities of each administrative area
2. Directory of civil servants and its monthly income
3. Official data contacts
4. Services offered
5. Procedures, formalities and requirements
6. Assigned budget
7. Audits
8. Subsidy program information
9. Concessions and permissions
10. Contracts
11. Regulation to each liable party
12. Citizen participation mechanisms

Finally, about the capability to propose, execute and conduct its budget, it is highly desirable that in order to comply with the responsibilities assigned by law, regulators must have certainty about its budget. Transport regulators in Mexico as part of the Executive Federal would not have complete control of the budget in broad terms; it means that the SCT is the administrator of the financial resources assigned. Thus, even if there are some budget accounts which are labelled for specific activities and some are proceeded thorough SCT structure, it can impose (even without being deliberate) limitations to the task's regulator. For example, on the budget assigned to verifications, inspections and legal assistance.

In the next sections, we address specific context of the legal framework and practices of the regulators.

Air transport

Regulatory framework

The current regulator of civil aviation and airports is the General Direction of Civil Aviation (DGAC). In August 27 of 2014 however, the Regulatory Impact Assessment (RIA) of the proposal to create the Federal Agency of Civil Aviation (AFAC) was submitted to the Federal Regulatory Improvement Commission (COFEMER) and made public—COFEMER approved the MIR exemption on August 16, of 2014. This is a prior necessary step before publication in the Official Gazette, which would create legally the said agency. It is worth to bring up that the proposal tries to modify a regulator which is under direct control of the SCT to an institution called de-concentrated agency (organismo desconcentrado), a legal entity that has technical and operational independence but financial dependency from the SCT. A deconcentrated agency, according to the LOAPF (Art 45) is an entity created by law or decree issued by the Congress or the Executive Federal with its own legal capacity and property—no matter which is the legal structure adopted. The RIA document establishes that the AFAC will not create additional costs because it will use the resources already assigned to the DGAC.
VI. ASSESSMENT OF THE INSTITUTIONAL ARCHITECTURE AND PRACTICES OF TRANSPORT REGULATORS IN MEXICO

The current obligations of the DGCA can be clustered in economic and technical regulation, industry promotion, enforcement and inspection to evaluate the compliance of regulation. In broad terms, the duties of the regulator are the following:

1. Regulation, coordination, monitoring and control of auxiliary, navigation and air related services
2. Elaboration of technical standards (NOM)
3. Economic and non-economic regulation enforcement regarding facilities and flight services
4. Authorize reallocation, enlargement, modernization and reconstruction of airports and validate airport maintenance programs
5. Register tariffs and agreements between concessioners
6. Promotion of the industry and development of evaluation studies

The draft decree which creates the AFAC indicates that the new organization will hold technical and operational autonomy. Responsibilities of the new institution, however, seem in general to be the same as the current obligations held by DGAC. As mentioned before, this scheme will maintain the challenge to lead an institution with two general objectives: promotion and regulation, because they will compete in resources and focus.1

In what follows, an assessment regarding whether the operations of the DGAC, including the proposed modifications for the creation AFAC, are consistent with OECD principles is presented.

**Role clarity**

The functions of the DGAC are quite detailed in the Interior Regulation of the SCT. Also, the Civil Aviation Law indicates some responsibilities (through the SCT) and the situations by which the SCT can coordinate some activities with other public institutions as the COFECE. By consequence, as the AFAC functions are similar to the DGAC, it is expected that this detailed level of responsibilities will hold.

Even if there is clarity on the role of the AFAC as a whole, the objectives and roles inside the institution could be further specified in the Organization Manual of the SCT. In this way, competition for resources between working areas could be diminished. Furthermore, the SCT has to make clear its role in civil aviation affairs so as not to duplicate functions or to impose unnecessary process, formalities or burden costs over the industry with the duties of the agency. For instance, it should be clear who is in charge to promote the industry through public policies and who are in charge to regulate, supervise and inspection the regulated entities.

Institutional capacity is also related with technical capabilities of the DGAC's officials. If the DGAC lacks skilled personnel or the proper incentives to keep them, the institution becomes weak. In the case of the national air transport regulator, one concern arises from the fact that the regulator is part of the Executive Federal, and changes in personnel would be as

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1 The proposal of creation of the agency indicates as its duties, the establishments of policies and programs in air transportation, as well as regulate, coordinate and control air transport services.
frequent as there are new heads in the office. Thus, there is a potential risk that the turnover of personal will lead a loss of skills and knowledge within the agency.

The evidence recollected suggests that coordination with other authorities, especially those involved in security and safety such as the Ministry of Defence, local police forces and Ministry of Interior occurs regularly following formal and institutional channels. On the other hand, in words of the regulators, the institutional coordination between the airline regulators and the Competition Commission to conduct markets’ analysis have not been set formally yet, although coordinated activities are taking place between the two institutions. These activities include formal and scheduled communication channels, spaces to discuss possible cases or analysis and planned co-working.

**Undue influence and trust**

The DGAC conducts regular informal meetings with the industry in order to collect their opinion regarding draft regulation to be developed. On the same basis, the industry reports to be committed in complying with the regulation and guidelines issued by the SCT.

Considering that international activities of airlines require complying with international standardization and by consequence complying with many national standards levels, which are based to a large degree on the international regulation, there seems to be little opportunity for the regulated industry to exert undue influence over the government’s regulatory decisions. Nevertheless, a formalization of meetings with the industry through clear methods can contribute to strengthen independency and transparency. A different situation would arise from the side of the consumers or other stakeholders but transparency and accountability is one of the main tools to combat undue influence.

The DGAC lacks a specific plan to strengthen confidence by the industry over governmental decisions. Public confidence is a powerful regulatory governance element.

**Decision making and governing body**

The Decree to create the AFAC indicates that the organization will have a General Director to conduct the listed attributions. The same document states that AFAC has to undertake the instructions under the influence of the agency which would be requested by the Minister of the SCT. This situation would create a channel by which the SCT can directly influence the AFAC—with the respective lose in the autonomy of decisions. As it was mentioned before, independence can have formal and informal channels (formal with legal powers and informal with practices) but the former can arise and vanish accordingly to the head of the government, Ministry or presidency. Apart from that, informal channels would be more prone to arise if own institutional arrangements and other's government institutions are weak—congress, judiciary power, ministries, etc. ²

The Decree also indicates that there will be a Technical Council on Civil Aviation acting as consulting body for aviation topics. This body will be integrated by six ministries (Tourism, Environment, Navy, Defence, Internal Affairs and SCT as the president of the body). As it can

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be observed, this body lacks technical expertise and industry representation—which could be a disadvantage when preparing and issuing new regulation. Additionally, the fact that all representatives belong to government ministries go against the objectives of independent decision making.

As mentioned before, the SCT has informal meetings with the industry. The best practice in this topic is to hold institutionalized meetings to assure objectivity. In these meetings, members of the industry, government and experts (such as academics) must interact.

**Accountability and transparency**

The DGAC publishes the information online that is required to do, following transparency obligations. In addition, there is information which is published in the own microsite of the DGAC regarding the basics of organizational structure, objectives and mission, the regulatory framework, air security, inspections, statistics, procedures, amongst other information. All the information published in the microsite is relevant and contributes to the objectives of accountability and transparency, although a more comprehensive and wider breadth of publications of statistics could strengthen accountability.

The DGAC could prepare new reports based on performance and key indicators which should be produced with regularity so as to increase the available information and hence the confidence in the regulator. These reports should also be produced for Congress and published in the webpage. Of course, there can be standard indicators or surveys to be prepared by INEGI and some of them reported by the own firm.

**Funding**

Financial resources of the DGAC are assigned and managed by the SCT, which is the entity that requests directly the funding to Congress. The budget of the DGAC, as it can be seen in the next chart has decreased as a percentage of the GDP since 2008. Also in absolute value, the budget of 2013 is the lowest of the last 7 years—72% of the nominal budget of 2008.

<table>
<thead>
<tr>
<th>Year</th>
<th>Aviation GDP in MXP (nominal)</th>
<th>Budget in MXP (nominal)</th>
<th>Budget as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>21,902</td>
<td>584</td>
<td>2.7%</td>
</tr>
<tr>
<td>2009</td>
<td>24,523</td>
<td>602</td>
<td>2.5%</td>
</tr>
<tr>
<td>2010</td>
<td>25,093</td>
<td>569</td>
<td>2.3%</td>
</tr>
<tr>
<td>2011</td>
<td>24,368</td>
<td>738</td>
<td>3.0%</td>
</tr>
<tr>
<td>2012</td>
<td>27,720</td>
<td>476</td>
<td>1.7%</td>
</tr>
<tr>
<td>2013</td>
<td>27,063</td>
<td>496</td>
<td>1.8%</td>
</tr>
<tr>
<td>2014</td>
<td>35,793</td>
<td>423</td>
<td>1.2%</td>
</tr>
</tbody>
</table>


3 http://portaltransparencia.gob.mx/.
VI. ASSESSMENT OF THE INSTITUTIONAL ARCHITECTURE AND PRACTICES OF TRANSPORT REGULATORS IN MEXICO

From the budget of 2014, 57% was allocated to personal services, 38% to operational spending and the remaining 5% to other labels. It is important to notice that for each category, the budget is not only for regulatory activities but also for industry promotion.

In the draft decree that creates that new regulatory agency, and in the accompanying RIA, it is established that no additional costs to the public administration will be generated. If the AFAC receives the complete responsibilities of the DGAC, the former will maintain the budget of the latter. Nevertheless, in a situation in which regulatory and industry promotion lie in different agencies, the budget of both institutions should depend according to performance evaluations and responsibilities.

**Performance evaluation**

There is no evidence that the DGAC conducts performance evaluations and constructs indicators to evaluate the effectiveness and impact of its activities. In fact, it does not have a formal annual planning document which could be the basis to perform ex-post evaluations. This is an important opportunity area to be developed so as to insure that all efforts are achieving their intended objectives.

**Rail transport**

**Regulatory framework**

The matters of regulation and industry promotion regarding rail industry lie within the authority of the Ministry of Communications and Transport (SCT). At the moment this report was written, the authority was the General Direction of Rail and Multimodal Transportation (DGTFM), which is under direct supervision of the Deputy Minister of Transport. Nonetheless, an important reform to the *Ley Reglamentaria del Servicio Ferroviario (LRSF)* was published in the DOF on January 26th, 2015 which includes a large change in the regulatory authority.

The decree indicates the creation of the Railway Transport Regulatory Agency (*Agencia Reguladora del Transporte Ferroviario*) (ARTF) which is to become a de-concentrated body within the SCT—this means that the new agency will have technical and operational autonomy to make decisions, implement their law-mandate and manage their own budget. It will not have legal personality or financial independence which implies that the budget will still depend on the SCT and all legal documents have to be signed by the Ministry of the SCT.

The reform is splitting the DGTFM into two organizations, one still as a general direction of the SCT and the other as ARTF. However, the level of independence on regulatory decisions by ARTF will be limited. An example of these limitations can be found in the process of granting and revoking railway concessions stated in the LRSF:

- Article 21 of the LRSF states the conditions on which the concessions can be revoked\(^4\). Regarding the procedure, the law states that the SCT could revoke the

\(^4\) When licensees don’t use their conferred rights of the concessions and permits during a period longer than 180 days; if the licensee changes its nationality; assign, tax or transfer the concessions or permits in contravention of the provisions of the law. The other scenarios in which the SCT may revoke the concession are re-incidence in and other specific conditions. The reform adds scenarios such as not complying with national standards and taking actions that block interconnections services.
concession under certain scenarios, and the reform added some scenarios and that
the concession may be revoked by request of the ARTF, with the final decision made
by the SCT—as it granted the concessions and as the scope of competence over rail is
broader than the regulatory agency. It is the new regulatory agency the one assessing
the instances when revoking concessions may be applicable, but it doesn’t have the
authority to decide on it. Thus, the final decision to revoke a concession still lies on
the Minister.

- Article 9 of the LRSF states the conditions on which the concessions may be granted.
  Fraction IV states: The Secretary will issue the ruling with basis on a comparative analysis
  of the proposals received, which will be public to every participant. The evaluation of the
  proposals will be made within the criteria of fraction III. Having the power of granting
  them is crucial for the development of the industry and the decisions are made by
  the Minister with no indications about the role of the ARSF. The ARSF could provide
  technical insights about when is needed to grant new concessions.

The reform of 2015 represented the most significant change since the privatization, but
still there are opportunity areas and challenges to handle the industry. The following table
reproduces the main changes in the regulatory capacity of the SCT and the ARTF before and
after the reform of 2015. As it can be seen, the regulatory duties of the SCT through the
DGTFM will be transferred to the ARTF—keeping the SCT only the promotion activities of the
industry. The reform therefore favours specialization by the authorities and avoids competition
between policies.

Table 10. Railway Industry Regulation and Promotion Attributions

<table>
<thead>
<tr>
<th>Article 6: Attributions on rail service</th>
<th>Ministry of Communications and Transport (Before the reform)</th>
<th>Ministry of Communications and Transport (After the reform)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Plan, design and conduct the policies and programs, as well as regulate the development of the railway system.</td>
<td>I. Plan, design and conduct the policies and programs, as well as regulate the development of the railway system.</td>
<td>I. Plan, design and conduct the policies and programs, as well as regulate the development of the railway system.</td>
</tr>
<tr>
<td>II. Give concessions and permits, verify their compliance and resolve issues of modification and termination.</td>
<td>II. Grant concessions and permits, as well as verifying their compliance and resolve issues of modification and termination.</td>
<td>II. Grant concessions and permits, as well as verifying their compliance and resolve issues of modification and termination.</td>
</tr>
<tr>
<td>III. Technical regulation of railways</td>
<td>III. Technical regulation of railways and infrastructure interconnection.</td>
<td>III. Technical regulation of railways and infrastructure interconnection.</td>
</tr>
<tr>
<td>IV. Basis of tariffs regulation</td>
<td>IV. Basis of tariffs regulation</td>
<td>IV. Basis of tariffs regulation</td>
</tr>
<tr>
<td>V. Sanctions</td>
<td>V. Sanctions</td>
<td>V. Sanctions</td>
</tr>
<tr>
<td>VI. Integrate the registry of permits and concessions.</td>
<td>VI. Integrate the registry of permits and concessions.</td>
<td>VI. Integrate the registry of permits and concessions.</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on the Law of Railway Services.

Role clarity

The main functions of the new agency are detailed in the Decree of creation and in the
Regulatory Law of the Rail Service. However, a drawback of the regulatory framework in rail,
VI. ASSESSMENT OF THE INSTITUTIONAL ARCHITECTURE AND PRACTICES OF TRANSPORT REGULATORS IN MEXICO

compared to the international experience, is the lack of development of technical standards (NOMs), which should be essential task of the role of the regulatory body. For instance, standards in Mexico are not updated and the regulator may not have a clear instrument to evaluate the improvement of a clear objective—as rail firms can pass such standards due to the lack of actualization without necessarily being adequate.

According to the Catalogue of National Standards published by the Ministry of Economy, the DGFTM has seven active national standards and seven prospective ones, adding up to only 1.47% of the total National Standards in Mexico. The content of the active standards are the following:

- Operation and maintenance of railways/Conditions of safety and hygiene
- Instructions for inspections and repairs regarding tractive railway equipment, daily inspections
- Instruction for inspections and repairs regarding tractive railway equipment, quarterly inspections
- Signalling for crossings of streets and roads with railways
- Railway unions with welding
- Safety rules and period inspections to the diverse systems that constitute the tractive railway electric-diesel equipment

Comparing the amount of the national standards in Mexico with those in other countries, it can be observed that there is a considerable lack of NOMs in comparison to other countries, see Table 10 and Table 11. Therefore, it could be stated that the regulatory agency has ample opportunities to develop the regulatory framework for the rail industry. An example is the U.K which has 1,102 standards that regulate the activities of rail network. According to the 2014 Catalogue published by IHS.

<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>Category</th>
<th>#</th>
<th>Category</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Information</td>
<td>4</td>
<td>Ergonomics</td>
<td>4</td>
<td>Rail Mounted Vehicle &amp; Plant</td>
<td>47</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>47</td>
<td>Fire Safety Policy</td>
<td>9</td>
<td>Safety &amp; Compliance</td>
<td>36</td>
</tr>
<tr>
<td>Commercial Property</td>
<td>1</td>
<td>Information Management</td>
<td>21</td>
<td>Signal Engineering</td>
<td>234</td>
</tr>
<tr>
<td>Competence &amp; Training Management</td>
<td>34</td>
<td>Infrastructure Maintenance</td>
<td>82</td>
<td>System Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Contracts &amp; Procurement</td>
<td>8</td>
<td>Integrated Risk</td>
<td>2</td>
<td>Telecoms Engineering</td>
<td>127</td>
</tr>
<tr>
<td>Electrical Power</td>
<td>194</td>
<td>Investment Projects</td>
<td>39</td>
<td>Track Engineering</td>
<td>133</td>
</tr>
<tr>
<td>Engineering Design Technology</td>
<td>0</td>
<td>National Delivery Service</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Environment</td>
<td>11</td>
<td>Operations &amp; Customer Services/</td>
<td>37</td>
<td>Total</td>
<td>1,102</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principal &amp; Standards</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Catalogue of Network Rail Standards published by IHS Inc.

* According to the 2014 Catalogue published by IHS.
The U.K (as other countries like the USA) has advantage in national standards compared to Mexico—for instance in number and width of topics covered. In the USA, there are standards published from the private sector (AAR and AREMA), as well as from the FRA. Only from AREMA, there are four broad categories: 1) track, 2) structures, 3) systems management and 4) infrastructure and passenger. These are divided in the 21 chapters. Each of these chapters includes sub-chapters adding up to a total of approximately 1,100. It must be noted that the rail industry of Canada, the United States and Mexico are similar in the sense of having freight as the principal component of the demand—in 2013, the industry moved a total of 111.9 million tons which accounted for 77.7 billion of tons-km. For the same year, the rail industry moved 45 million passengers with 1.03 billion passenger-km. This contrasts with the railway industry from the U.K and the majority of the European Union, being passenger oriented.

Table 12. Standards or rail regulation published by the AREMA

<table>
<thead>
<tr>
<th>Track</th>
<th>Structures</th>
<th>Infrastructure and Passenger</th>
<th>Systems Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>15. Light Density and Short Line Railways</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17. Electrical Energy Utilization</td>
<td></td>
</tr>
</tbody>
</table>

Source: own elaboration based on information from the American Railway Engineering and Maintenance-of-Way Association.

The second aspect from the North American rail market to consider is that such industries are closely integrated. There is a high volume of commerce within the three countries. In particular, the Mexican external trade (imports + exports) in the freight rail market adds up to 45% of the total traffic. Thus, as the Mexican rail companies are members of both, AAR and AREMA associations, they are required to comply with their standards. Although it can be seen as an advantage that Mexican companies comply on their own account with international standards, there is no way to confirm that this is indeed the case in Mexican territory, as this standards cannot be enforced by Mexican agencies as they are not officially part of the regulatory framework.

Even if self-regulation can contribute to improve rail services, regulatory capacity is needed to ensure that standards are applied fully. The regulator must have the power to set and enforce regulation and impose fines if there is no compliance.

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6 Association of American Railroads (AAR) is a chamber of rail industry companies and American Railway Engineering and Maintenance Association (AREMA) is an industry experts’ association.

7 According to the “2014 MANUAL FOR RAILWAY ENGINEERING”.

8 All of the rail industry statistics used in the chapter are taken from the “Annual Railway Statistics” document, published by the DGTFM in the SCT with the latest data from 2013.
Coordination with other agencies is also crucial for role clarity. Rail companies have to interact with different authorities depending on the places or subjects they may encounter. Thus, coordination between public agencies is quite important in order to comply with several regulatory objectives, causing the minimum of burdens to rail firms. In Mexico, there are 44 basic formalities involving the DGFTM; nevertheless, some important regulatory issues involve other authorities, such as the Environmental Impact Assessment which requires coordination between the DGTFM and the Environmental Agency of Mexico. Also, efficient coordination within the own SCT should take place in order to meet regulatory objectives. Here are some examples for the rail industry:

1. **Right of way**: The right of way in Mexico is defined as the fringe of terrain that it is required for the construction, conservation, extension, protection and in general for the adequate use of a general way of rail communication, with dimensions and characteristics mandated by the SCT. The functioning of this right is fundamental to design the crossing of railways in inner part of cities, in order to minimise risks of damage. Even though the LRSF states that the SCT is the appropriate authority to define the right-of-way, there are variations across regional SCT offices in the criteria applied when enforcing this regulation.

2. The SCT Centres scattered across the Mexican states oversee the regional policy implementation of the central office and act as representation on each Mexican state. Their mission, according to the SCT webpage is to “contribute to the development of the communication and transportation systems in each federal entity, executing and promoting the institutional programs”. As reported by industry representatives, interpretation an application of the regulation differs across these SCT centres, which generates uncertainty for them. **Environmental Impact Assessments (EIA)**: The EIA is a formality which rail companies have to comply with. National regulation indicates that the environmental agency (SEMARNAT) enforces this formality. SEMARNAT, as SCT, has regional offices in each state, with the following attributions, “Granting permits, licenses, authorizations, and their respective cancelations, revocations or extinctions”. As reported by industry representatives, the issue arises when regionals office impose different requirements to control and validate the EIAs, which generates uncertainty to firms as an increases burdens to the industry.

These are only two examples of crossing regulatory interests between agencies. A governmental authority should have the ability and the will to coordinate in order to simplify these interactions.

**Preventing undue influence and maintaining trust**

As the DGTFM has informal meetings with the industry, the opportunity area to the ARTF lays in the formalization of these meetings so as to prevent undue influence. Depending on the topic and the relevance, it would be advisable to invite external actors to the meetings to express opinions over discussions.

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* According to a catalog published by COFEMER.

10 According to the rules of procedure of SEMARNAT.
Trust in the regulator from the public and the rail firms are very important. In the present context, in which the new Law emerged from a debate concerning the concessions conditions and the few spaces to regulate the industry effectively, it is necessary to boost the confidence in the agency. The strategies to increase confidence are many, for instance: public consultancy, committees, evaluations, recruitment policies, etc.

**Decision making and government body structure for independent regulators**

At this moment, there is no evidence regarding the possibility to implement a governing body in the ARTF. As mentioned, committees are important to make supported decisions and to reduce associated risks in governance. These bodies would have representatives from the government, academia, etc. In the following sections there will be some recommendations regarding the convenience and structure of the governing body of the ARTF.

**Accountability and transparency**

The DGTFM currently publishes the standard requirements set by the information transparency law in México. This information however, could be improved if the new agency focuses beyond this information and makes public relevant statistics. Nowadays, the statistics of the rail firms are published on a yearly basis (yearbooks) but the information is limited and it is published in unfriendly formats to work with, for instance, it cannot be downloaded in spreadsheet form.

Statistics in the rail industry are an important element to track performance of the agency, and it also helps to create confidence in the regulator.

Another area to improve is the construction of performance indicators and their publication. There is no concluding evidence that the DGTFM elaborates systematically a strategic plan for the upcoming years. These plans are relevant because with them, the regulator can measure if it reached the objectives and goals. It is worth to remember that the regulator has to create more benefits than costs and it can only be analysed if there are valuable indicators.

**Funding**

Funding is one of the core aspects of the regulator’s design. It can be requested by the Minister, self-selected with the approval from Congress, provided by income generated from regulatory activities or a combination of all these. All funding scenarios will have an impact in the level of independence of the regulator’s decisions. Thus, if the regulator’s budget depends on the approval of the Minister, it would have with high probability an actual subordination—even with some controls. In Mexico, the DGTFM receives its budget from the SCT, which is labelled within different categories—some regulatory related or industry promotion oriented.

A transitory Article in the Decree which creates the new agency indicates that there will be no more budget available than the approved to the DGTFM—21 billion pesos in 2014. This creates some concerns as to the capacity of the ARTF to comply with its regulatory activities, especially considering the deficit in NOMs addressed before.
The budget of the DGTFM since 2008 has been the following:\(^\text{11}\):

Table 13. **Budget of the DGTFM since 2008**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rail GDP (nominal MXP)</th>
<th>Budget (nominal MXP)</th>
<th>Budget as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>15,567</td>
<td>715</td>
<td>5%</td>
</tr>
<tr>
<td>2009</td>
<td>17,159</td>
<td>3,422</td>
<td>20%</td>
</tr>
<tr>
<td>2010</td>
<td>21,606</td>
<td>2,260</td>
<td>10%</td>
</tr>
<tr>
<td>2011</td>
<td>23,980</td>
<td>3,271</td>
<td>14%</td>
</tr>
<tr>
<td>2012</td>
<td>26,948</td>
<td>4,134</td>
<td>15%</td>
</tr>
<tr>
<td>2013</td>
<td>28,533</td>
<td>3,350</td>
<td>12%</td>
</tr>
<tr>
<td>2014</td>
<td>31,954</td>
<td>19,052</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Source: Federal Expenditure Budget, Ministry of Finance.*

From the budget of 2014, 96.6% ($18,402 million) were allocated to investments; 0.02% ($41.1 million) to personal services; 0.1% ($18.4 million) to operation spending; 0.01% ($14.5 million) to subsidies; and 3.0% ($576 million) to other spending. The funding directed towards personnel (which included the inspection staff) comes from the categories *Personal Services and Operations Spending*. For instance, if it were possible to assign all the budget of these categories to the ARTF, then it would add up to $59.5 million pesos; however, this amount includes staff engaged in promotion activities as well. Under this scenario, the average annual budget for regulatory purposes would be $2,226 pesos per kilometre of railroad. Furthermore, since the budget of the Agency will continue to be allocated from the SCT, the independence of the new agency will not be strengthened.

**Performance evaluations**

When there are infrastructure projects, the DGTFM implements ex-ante evaluations, normally named feasibility studies. This is not the same situation for regulatory activities, which are conducted without assessing results in systematic basis. Ex-post evaluations for regulatory activities are not a standard practice—as many OECD countries.

**Road transport**

The legal authority in federal road regulation is the General Direction of Federal Road Transportation (DGAF). This authority is a department within the supervision of the Deputy Ministry of Transport of the SCT. At the moment this report was written, out of the three regulators analysed, the DGAF is the only one not in a transition to become a de-concentrated body. In order to analyse the functioning of the DGAF, the governance principles for regulators of the OECD will be employed as framework of reference. The DGAF has several key objectives

\(^{11}\) From the third transitory article, published the 26th of January 2015 in the DOF.
they find important to improve the industry competitiveness. In the following table, some of these objectives and past milestones reached are listed in Table 13. These represent short term goals that may have important impacts in the industry:

Table 14. **Milestones and Objectives of the DGAF**

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Objectives 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1. Publication of Standard 001 about plates to guide the single registration</td>
</tr>
<tr>
<td>1. Publication of the Standard 012 about weights and dimensions</td>
<td>2. Launch of five procedures in the unique window</td>
</tr>
<tr>
<td>2. Publication of the Notice of Reclassification of Federal Roads in COFEMER</td>
<td>3. Publication in the Official gazette in March about the Agreement of Light Integral Vehicles by request of the Ministry of Tourism</td>
</tr>
<tr>
<td>3. Successful conclusion of the Pilot Program of Long Travel (inspections)</td>
<td>4. Publication of the Reclassification of Federal Roads in the Official gazette</td>
</tr>
<tr>
<td>4. New version of the Integral Capacitation Programs, approved by the principal organizations of the industry and published in the Official gazette</td>
<td>5. Re-launch of the Vehicle Junking Program, together with the Ministry of Finance, of Economy and of Environment</td>
</tr>
<tr>
<td>5. Signing of agreement between SCT-Service of Administration and Disposition of Assets about disposition and alienation of abandoned vehicles in federal deposits</td>
<td>6. Reclassification of vehicular use permits</td>
</tr>
<tr>
<td>6. Meetings with the Ministry of Tourism to include sprinter vehicles</td>
<td>7. Re-engineering of the 72 DGAF procedures</td>
</tr>
<tr>
<td>7. Meetings with the Federal Police to improve coordination, as well as to define the bases of the Agreement of Information Exchange</td>
<td>8. Installation of at least 10 measuring arches of weight and dimensions</td>
</tr>
<tr>
<td></td>
<td>9. Improvement of informatics systems</td>
</tr>
<tr>
<td></td>
<td>10. Improvement of the effectiveness of supervisions and fines</td>
</tr>
<tr>
<td></td>
<td>2015</td>
</tr>
<tr>
<td>1. Publication of the Standard 068 about physical-mechanical conditions</td>
<td>1. Publication of Standard 001 about plates to guide the single registration</td>
</tr>
<tr>
<td>2. The Department of Transport of the United States notified the Federal Register of the United States the establishment of the Rules for Mexican Carriers which liberated the restrictions of access to trans boundary services of large haul freight</td>
<td>2. Launch of five procedures in the unique window</td>
</tr>
</tbody>
</table>

*Source: Own elaboration based on information given by the DGAF of the SCT.*

**Role Clarity**

An important fact to take into account regarding the roles of the DGAF is that its jurisdiction is federal, meaning that it does not have authority over state or municipal roads. In doing so, it has the following responsibilities (segregated by type of activities):
### Table 15. Responsibilities of the DGAF

<table>
<thead>
<tr>
<th>Regulatory</th>
<th>Promotion</th>
<th>Inspection &amp; Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Generate National Standards</td>
<td>1. Participate in the infrastructure policy planning.</td>
<td>1. Conduct complaints regarding the permit holders of federal roads</td>
</tr>
<tr>
<td>2. Issue permits for public services and private carriers along with the creation of a schedule register of public service carriers.</td>
<td>2. Propose treaties and agreements with international agents.</td>
<td>2. Coordinate with the relevant offices about the compliance of regulation and accident monitoring.</td>
</tr>
<tr>
<td>3. Approvals and authorizations for terminals (cargo and passengers), drivers and companies in the industry.</td>
<td>3. Promote technologies that enhance the competitiveness of the federal road industry</td>
<td>3. Inspect to assess the quality of the whole federal road system</td>
</tr>
<tr>
<td>4. Issue, control, suspend and cancel federal driver licences.</td>
<td>4. Propose, develop and manage information technologies in order to publish industry statistics.</td>
<td>4. Propose inspection, verification and vigilance agendas, and coordinate these inspections with the pertinent authorities.</td>
</tr>
<tr>
<td>5. Impose sanctions</td>
<td>5. Implement actions that help the public to grasp the way the industry functions.</td>
<td></td>
</tr>
<tr>
<td>6. Authorize a trust that would pay for possible damages.</td>
<td>6. Collaborate in the design of an information system that would enhance commercialization.</td>
<td></td>
</tr>
<tr>
<td>7. Regulate tariffs</td>
<td>7. Design programs to promote the modernization of vehicle parks and improve the financial conditions of carriers</td>
<td></td>
</tr>
<tr>
<td>8. Prepare economic analysis of the industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Make agreements between holders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Issue metallic car plates and administrate the register for carrier’s vehicles in federal roads.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own elaboration based on the Rules of Procedures of the Ministry of Communications and Transportation.

As it can be noted from Table 1, the DGAF has competing activities involving both industry promotion and regulation. These can hamper the effectiveness of regulation since promotion activities compete with regulatory objectives, and they may conflict as well. Having an authority specialized in regulation will provide the adequate focus minimising any possible conflict with the rest of government activities.

**Preventing undue influence and maintaining trust**

The position of General Director is selected by the Deputy Ministry of Transport. It does not involve a formal selection process, such as examination or panel evaluation. A transparent, open and objective selection process is desirable for the position of the chief road regulator. This will ensure greater confidence from the public and the optimization of the DGAF activities by avoiding an adverse selection when appointing the General Director.

Another important subject is the confidence of all the procedures regarding road regulation. The DGAF has started a relevant regulatory improvement project. This project is expected to increase the transparency of the procedures involving the DGAF and thus, to reduce corruption to the least possible level.

**Decision making and governing body structure for independent regulators**

- Being a department with full subordination to the Minister, decisions are not independent. In most cases, the departments within a Minister have a *de facto* subordination, in which
they have to follow lines of action set by their superiors, within the legal framework. In other cases, it is established in the regulatory framework, that the actions of the DGAF will be subordinated to the Vice-ministers decisions.

AS the DGAF depends hierarchically of the Deputy Ministry of Transport, there is no real independence from the political cycle in the regulatory decisions for the road transport industry.

**Funding**

The budget allocated to the DGAF is defined by the Minister of the SCT, which is then approved by Congress. For the fiscal year 2015 it was approved as follows: (a) Current Expenditure: $235,812,046 MXP, which is then subdivided into personal Services ($95,412,046 MXP), operations spending ($140,290,000 MXP), subsidies ($0 MXP) and other current expenditures ($110, 000); and (b) Investment Expenditure: $0 MXP.

<table>
<thead>
<tr>
<th>Year</th>
<th>Road GDP (nominal MXP)</th>
<th>DGAF Budget (nominal MXP)</th>
<th>Budget as % of road GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>$20,879</td>
<td>$441</td>
<td>2.11%</td>
</tr>
<tr>
<td>2009</td>
<td>$20,353</td>
<td>$368</td>
<td>1.81%</td>
</tr>
<tr>
<td>2010</td>
<td>$17,936</td>
<td>$409</td>
<td>2.28%</td>
</tr>
<tr>
<td>2011</td>
<td>$20,530</td>
<td>$488</td>
<td>2.38%</td>
</tr>
<tr>
<td>2012</td>
<td>$21,413</td>
<td>$384</td>
<td>1.79%</td>
</tr>
<tr>
<td>2013</td>
<td>$23,936</td>
<td>$308</td>
<td>1.29%</td>
</tr>
<tr>
<td>2014</td>
<td>$25,937</td>
<td>$235</td>
<td>0.90%</td>
</tr>
</tbody>
</table>

*Source: Own elaboration based on the Federal Expenditure Budget, Ministry of Finance.*

As seen in Table 15, the ratio of Budget-GDP has been declining over the last seven years.

A fundamental budget concern is the low wages for inspectors. According to officials of the DGFA, the average monthly salary of an inspector is $7,000 MXP (before taxes). Having a set of poor financial conditions to offer to inspectors may bring several complications:

1. Low skilled inspectors: if an employee has the proper technical abilities for the transport industry, it will prefer to work for the private sector were salaries are higher.
2. Higher probability of capture: as the wages are lower, it is easier to bribe inspectors, since the opportunity cost of not accepting the bribe becomes higher.
3. High rotation of inspectors: If there are no expectations of income growth while building a career as an inspector, people will not last many years. This can also translate into a stagnant knowledge and skills capital for inspectors, as there is no incentive to improve for the lack of rewards of doing so.
In the context of a federal government cut in spending (154 billion MXP announced for the 2015 fiscal year), more budget for inspections is unlikely. Therefore, alternatives income sources for the regulators should be explored, such as receiving a percentage of the sales of the regulated companies, as applied in other OECD countries, as the UK and not member countries as Peruvian regulators.

**Engagement**

In order to strengthen to the quality of the regulation, the DGAF has designed and published rules of procedure for the workgroups evaluating the NOMs. The workgroup following up to the NOM-012-SCT-2014 is a committee analysing the maximum level of weight and dimension of vehicles transiting federal roads. The workgroup has to hold at least three sessions annually. The SCT, industry chambers, government officials, and panel of experts are part of the workgroup, and information about the recommendations made by the industry is normally published on the webpage of the SCT. This practice is made to assure transparency in the process of making and evaluating the regulation made by the DGAF.

**Performance Evaluation**

Due to budget constraints the DGAF does not engage in regular performance evaluation. Also, no relevant performance indicators have been developed.
VII. Policy options

Structure definition

Policy option 1

Mexico should consider establishing a single, independent regulator which encompasses the three modes of transportation. This body is to have three general areas; rail, road and air transportation. This proposal goes beyond the current efforts of the federal government, who has decided to create decentralized bodies for rail and air transport regulators.

The main reason supporting this claim are the following:

1. Coordination between public institutions in Mexico is not a common practice even if they have legal provisions for such duties. Thus, a single regulator minimizes the number of coordination efforts between institutions.

2. A single coordinator can achieve efficiency gains in the use of public funds and regarding some activities as inspections, administration duties, legal duties, etc.

3. The context of Mexico would need formal separation of the Executive Federal to increase confidence and trust in the regulatory authority and avoid political terms. This can increase the number of professionals in transport activities. A governing body to direct the institution would strengthen the position of the institution to avoid regulatory capture with strong duties of transparency and accountability, which are the most powerful tools to avoid capture from public institutions, firms and the public.

4. Public institutions as justice courts, ministries, congress are still working and developing its institutional strengths and this situation would be not optimal for a Federal Executive regulator.

5. Mexico has a tradition of Presidential control which is now being reduced accordingly in some technical areas. A formal independent regulator targets on such direction.
6. A strong independent regulator (technical, administrative, legal and financially) would be more efficient keeping its position over technical duties.

**Policy option 2**

Coordination agreements between the proposed transport regulator and other significant public agencies like COFECE, Customs, the Federal Police, are recommended to be established.

**Discussion**

- In Mexico, there is a need to create public confidence over public decisions; thus, as far as the transport regulator is seen as independent, it can create confidence. Independence has to be achieved with regards to 1) the public, 2) the regulated entities and the 3) federal government. The challenge is to reduce the risk to be captured not only by the industry, which can capture the regulator or its managers, but from the general public which may include political organizations, and from the government.
- The proposal to set up an integrated regulator is to avoid coordination issues between agencies and to achieve economies of scale in some activities like inspections, strategic planning, legal assistance, administrative procedures, development of statistics and economic studies. This figure can be seen in Australia for some modes.
- Three regulators, independently of their degree of independence, would imply three different efforts to coordinate with public and private agencies, which is costly in economic terms due to transaction costs and information asymmetry. In contrast, with an integrated regulator, the individual efforts to coordinate with other agencies are reduced and collaboration can be more effective due to a more powerful regulator which can deal with other authorities.
- Current regulators find difficult to attract and keep experts due to staff mobility and uncertainty of job stability. Currently, the high and medium level officials from the regulatory offices are appointed by Ministers, Deputy Ministers, etc. or other officials from the Executive Federal, which means that their decision to remain or to move is linked with the political cycles.
- This creates an important job turnover on critical positions and responsibilities within the regulatory offices, which affects the accumulation of human capital and creation of specialization. Therefore, should staff appointments within the regulator are disconnected from political appointments, the regulator capacity increases due to better and more skilful staffing policies.

**Institutional responsibilities**

**Policy option 3**

The proposed regulator should only be responsible for enforcing technical and economic regulation. Activities regarding industry promotion should be kept as SCT responsibilities.
VII. POLICY OPTIONS

Discussion

- The institution is proposed to be responsible only for regulatory activities, leaving the industry promotion to the SCT. This helps to focusing on only one objective avoiding possible competition over scarce resources.
- Industry promotion tends to diminish the relevance of regulatory activities. This is expected across governmental offices, since project developments and subsidies to enterprises and consumers hold more budget and political interests. This is even more pronounced considering the fact that very little is done to monitor and assess the outcome of regulation.

Governing body

Policy option 4

Mexico should consider establishing a governing body for the transport regulators using the Commission Model. In this model the board is the main responsible for the oversight, strategic guidance and operational policy of the regulator. The board itself also makes most substantive regulatory decisions.

Policy option 5

It is suggested the implementation of a consultancy council formed by external, recognized and relevant actors which should have opinion but no voting capacities. The objective of this council is to provide technical support in decisions, create public confidence and avoid public and industry capture. The profile of the external council should include a member of the SCT to keep the governmental point of view, a representative from the industry and the rest of members from academia or expert organizations with no links to the government or the industry.

Discussion

- The Commission Model has a larger capacity of shielding the agency from regulatory capture, as responsibilities and decision taking lie in more than person. This capacity can be strengthened if board members have fixed terms, avoiding political cycles. Furthermore, the assurance of the commissioners’ expertise is important to aim for efficient policy and regulatory measures.
- Decision by consensus has some advantages in comparison with unilateral decisions. For instance, decisions are less biased and because of this, they are more scrutinized. On the other hand, the disadvantages rely on the coordination problem to get consensus.
- In México there is recent experience to conduct these processes in the Board of COFECE and the Federal Telecommunications Institute with successful results.
- The implementation of a board or council elected by transparent and unbiased process helps to reduce the risk of regulatory capture and the assignment of political appointments.
- Transport regulator should create confidence between stakeholders—mainly between transport firms and organizations. Regulators’ decisions should take into account the
point of view of the industry. A consultancy council can help to build this confidence and create a two-way dialogue with the industry and the society at large.

**Funding**

*Policy option 6*

The budget for the transport regulator should be assigned in order to achieve the planned outcomes and objectives. The budget should be sufficient for the transport regulator to undertaking all the duties assigned, no less but no more.

**Discussion**

- The size of the budget has to be proportional to the functions, responsibilities and the size of the regulated market. The policy objectives of the regulation may not be achieved if a regulator has sufficient and extensive powers according to the legal framework, but has a low capacity to enforce regulation and impose fines. The same can happen should the regulator have limited powers and an excessive budget.

- Currently, transport regulators in Mexico have many responsibilities on enforcement, such as inspections and NOM verifications, and only with an appropriate budget they can be properly followed up. Additionally, financial autonomy provides independence on decisions and facilitates the implementation of long term projects.

- It is expected that financial resources are limited and rigid when provided by Congress on a yearly basis. In contrast, if part of the financial resources is collected by the regulator itself, they can be adapted to the size of the market and it generates incentives to be efficient in the use of money.

**Engagement**

*Policy option 7*

The transport regulator should establish formal communication channels with stakeholders and formal procedures of public consultation to collect evidence and information. These arrangements are likely to create confidence with the public. The consultancy council mentioned above should be part of this strategy. Provisions for regulatory impact assessment and consultation over regulatory decisions should also be implemented, similar to the current existing ones.

**Discussion**

7. Public consultancy creates communication channels between the regulator and stakeholders which can strengthen policy decisions and improve governance.

8. Public consultancy is an effective way to socialise difficult public decisions.

9. The transport regulator should establish its own provisions to undertake a regulatory impact assessment and public consultation, similar to the ones currently established in the applicable regulatory framework of the centralised federal government.
Evaluation and performance indicators

**Policy option 8**

Performance evaluations to measure the impact of the regulator over the regulated industry, potential and actual consumers and other stakeholders should be carried out periodically by the transport regulator. In this way, the regulator will have information on the degree of impact of its activities, and will be able to take actions to improve its performance.

**Policy option 9**

As part of the performance evaluation, relevant performance indicators across all modes of transport should be developed. This should include safety, security, finance, environment, and infrastructure and consumer satisfaction. Table 16 contains a proposal of the most relevant indicators that should be part transport performance indicators:

<table>
<thead>
<tr>
<th>Table 17. Performance Indicators Proposal — Transport Regulator in Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety</strong></td>
</tr>
<tr>
<td>Number of accidents adjusted by standard industry indicators</td>
</tr>
<tr>
<td>Fatal rate accidents</td>
</tr>
<tr>
<td>Identification of number of heavy vehicles by type and cause</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
</tr>
<tr>
<td>Licenses issued per average staff hours</td>
</tr>
<tr>
<td>Disputes mediated</td>
</tr>
<tr>
<td>% on time performance trips</td>
</tr>
<tr>
<td>Average time of delays</td>
</tr>
<tr>
<td>Service Interruptions</td>
</tr>
<tr>
<td>Number of complaints adjusted by standard industry indicators</td>
</tr>
<tr>
<td>Number of accidents of maintenance workers</td>
</tr>
<tr>
<td>Priority Strategies Delivered</td>
</tr>
<tr>
<td>Number of National Standards Published</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
</tr>
<tr>
<td>% Operating Cost Covered by Passenger Related Income</td>
</tr>
<tr>
<td>Cost per employee</td>
</tr>
<tr>
<td>Ratio Assets/Liability</td>
</tr>
<tr>
<td>% of government funding</td>
</tr>
</tbody>
</table>

*Source: Own elaboration.*
VII. POLICY OPTIONS

**Policy option 10**

As part of the performance evaluation strategy, both ex-ante and ex-post impact assessments of the regulation should be carried out.

**Discussion**

- Indicators that allow examining and assessing the performance of the regulator are one the main ways to determine whether the regulator has achieved the objectives it was designed for.

- Objective and relevant performance indicators can provide a general outlook of the public intervention, and can allow for international comparisons to widen the scope of the comparative assessment.

- It is also desirable to implement ex-ante evaluations to analyse if the draft regulation provides a positive net benefit to society, which then can be the basis to carry an ex-post evaluations to assess the real impact achieved. The Regulatory Impact Assessment (RIA) is an important tool which has been widely adopted by OECD countries for ex-ante assessment of draft regulation.

**Transparency and accountability**

**Policy option 11**

The transport regulator should produce and provide information and standardized statistics in easy to handle layouts and formats.

**Policy option 12**

The transport regulator should provide justification on its regulatory decisions and make them public.

**Discussion**

- Regulatory confidence is a difficult objective to achieve. Information sharing, public consultation and engagement with stakeholders contribute to create confidence in institutions. Therefore, one of the main objectives for the transport regulator when providing information — including statistics — is to build confidence in the regulator and promote accountability and transparency.

- Statistical information can be used by the public, regulated entities, academia and the consultancy council to assess and support regulatory decisions.

- The use and publication of RIA will be fundamental for the transport regulator to justify regulatory decisions.
Bibliography


Constitución Política de los Estados Unidos Mexicanos.


Department of Transportation Act of the United States of America, 1966.


Hilferink (2005), The correlation between freight transport and economic activity in the 16th International Symposium in Theory and Practice in Transport Economics. 50 years of


INEGI, Banco de Información Económica.


Ley de los Órganos Reguladores Coordinados en Materia Energética.

Ley Federal de Procedimiento Administrativo.

Ley Federal de Telecomunicación y Radiodifusión.

Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental.

Ley Orgánica de la Administración Pública Federal.


Passenger Rail Transport, Institut D’Economie Industrielle, January.


Presupuesto de Egresos de la Federación 2008.

Presupuesto de Egresos de la Federación 2009.

Presupuesto de Egresos de la Federación 2010.

Presupuesto de Egresos de la Federación 2011.

Presupuesto de Egresos de la Federación 2012.

Presupuesto de Egresos de la Federación 2013.

Presupuesto de Egresos de la Federación 2014.

Reglamento Interior de la Secretaría de Comunicaciones y Transportes.

SCT, Anuario Estadístico Ferroviario 2015, Dirección General de Transporte Ferroviario y Multiomodal.


Redefining a National Transport Regulator in Mexico

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