



**IBTTA**  
International Bridge, Tunnel and Turnpike Association

Technology Workshop: South America  
**Mexico's Toll Road Sector Performance**

Patricio Cal y Mayor Leach

**C&M**  
Cal y Mayor y Asociados



**1. LESSONS FROM HISTORY**

BEFORE	AFTER (2000- )
<ul style="list-style-type: none"> <li>Highway concessions were awarded to the bidder offering the shortest concession period</li> <li>Tariff setting: according to CPI</li> <li>Optimistic traffic forecasts</li> <li>Bidder focus: Construction companies</li> <li>Construction Cost Overruns</li> <li>Inadequate Financial Structures</li> </ul>	<ul style="list-style-type: none"> <li>Highway concessions are awarded to bidders that meet technical, economic and legal conditions</li> <li>Average maximum toll</li> <li>Conservative traffic forecasts</li> <li>Bidder focus: Typically joint ventures between local and international construction companies, financial institutions, etc.</li> <li>Close supervision on the construction process</li> <li>Adequate financial structures</li> </ul>

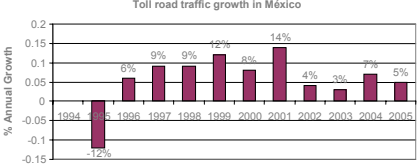
**30 años**  
30 años de experiencia



**2. TRAFFIC GROWTH**


- Federal concession roads
  - 73 highways
  - 42 bridges
- Traffic growth is strong, but year-to-year variations is considerable (-12% to +14%)

**Toll road traffic growth in México**



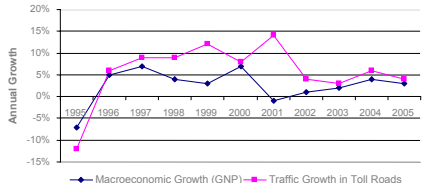
Year	% Annual Growth
1994	-12%
1995	6%
1996	9%
1997	9%
1998	12%
1999	8%
2000	14%
2001	4%
2002	2%
2003	7%
2004	5%
2005	5%

**30 años**  
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**3. TOLL TRAFFIC VS. MACROECONOMIC GROWTH (GNP)**

- There is a positive correlation between macroeconomic growth and traffic growth in toll roads (70%).

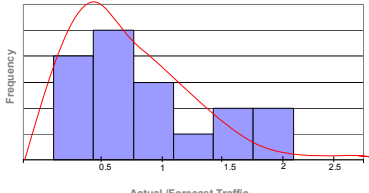


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**4. TRAFFIC FORECAST 1994**

- Accurate forecast returns a value of 1.0
- In over 75% of cases traffic was overestimated



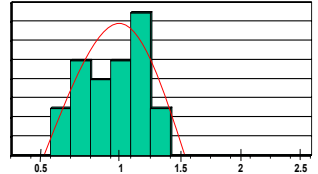
**30 años**  
30 años de experiencia



**5. TRAFFIC FORECAST (2000 - )**

- Accurate forecast returns a value of 1.0.
- The error of change remains considerable from actual traffic 28% below the projected to asset over performance of 21%.

**Toll Road Traffic Forecast (2005)**  
Normal (0.99, 0.13), (n=21)



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### 6. RATING DISTRIBUTION

- Rating Agencies currently rate 10 toll road credits in México in the highest categories under the Mexican rating scale.

Rating	Number of toll roads
mxAAA	6
mxAA+	2
mxAA	1
mxBBB+	1

rate

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### 7. CONCESSION ASSIGNMENT PROCESS

- Concession assignment through an open bidding process
- Concession includes construction, operation and maintenance of national toll roads, for a specific period
- Bidding process divided in two phases:
  - First phase: the technical proposal is evaluated
  - Second phase: the economic aspects of the proposal are evaluated (if the technical aspects are correct)
- Concessionaries can be foreign companies
- Concessionaries can transfer the stock control of the company after three years of operations
- The concession period is a maximum of thirty years, which under certain circumstances can be extended to another thirty years.

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### 8. ASSIGNMENT PROCESS

- In the financial bidding proposal the competitors should consider the financial support to be given by the government.
- The government can participate with public funds financing through the Infrastructure Investment Trust (FINFRA), through two different concepts:
  - Initial investment
  - Obligation of future investment (the government will also contribute with an investment during the operation period, if the concessionary requires it during the bidding process)
- The concession will be given to the bidder whose technical and financial proposal is O.K. and requires the least amount of public funds, considering the initial investment and the net present value of the future investment, considering the discount rate included in the toll road.

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### 9. ONGOING CONCESSION PROGRAM

PROJECT	LENGTH (KM)	AMOUNT (USC\$)
<b>RECENTLY AWARDED CONCESSIONS</b>		
• Libramiento de Matzahuala	14.2	35.86
• Libramiento de Mexicali	41.0	63.12
• Amozoc - Perote	103.0	171.94
• Tepic-Villa Unión	152.0	287.81
• Morelia-Salamanca	83.0	134.38
• Libramiento Norte de la Ciudad de México	223.0	585.18
• Libramiento de Tepepan	4.0	15.41
<b>CONCESSIONS IN BIDDING PROCESS</b>		
• Monterrey-Satillo y Libramiento Poniente de Satillo	92.0	229
• Puente Internacional Sal Luis Río Colorado II	0.4	7.40
• Puente Internacional Reynosa - Anzaldúas	10.0	60.18
<b>TOTAL</b>	<b>722.6</b>	<b>1,591.28</b>

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### 10. ONGOING CONCESSION PROGRAM (CONT.)

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### 11. CONCLUSIONS OF THE SECTOR PERFORMANCE

- Transparent concession process.
- Traffic growth has showed a continued positive trend during the past 10 years.
- There is a positive relationship between GDP and toll road traffic growth (70%).
- More and more overseas concessionaries are participating in the actual Mexican concession program.
- In the next five to ten years the program tend to grow in number of new concessions throughout the country.

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**Colombia**  
Marco Antonio Hinojosa  
Jenny Landrada  
Tel. (571) 616.7377

**México**  
Oscar Salcedo Y.  
Marco Noguero E.  
Tel. 52 (55) 5033.8190