Technological Competences in Supporting Industrial Firms: The Autoparts Sector in Mexico

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Objective of this presentation:

- Bird-view of main organizational and learning changes in the automotive industry in Mexico before and after NAFTA

- Foreseeing the implication of these technological capabilities accumulation in changing to another paradigm or technological trajectory.
Relevance in the National Economy

- The automobile industry
  - More than 3% of the GDP
  - Second exporting sector in the country
  - Important exporter of engines
  - Second largest source of employment
Contextual Introduction

**MEXICO**
- Import Substitution Industrialization
  - Automotive Sector – The exception
- Trade Liberalization
- NAFTA → Entrance in 1994
  - De-regulation of the industry
  - Ownership requirements
  - Local content requirements
  - Homogenization of the industry
Automotive Industry Structure
Results (1)…

- R&D is conducted in isolation to other kinds of learning mechanisms.

- The acquisition of new machinery and equipment is complemented with the acquisition of technology packages and transfers from firms’ headquarters.

- Training is the main source of learning… but…
… Other aspects of the SSI

- **Linkages with Universities**

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### Results (2) …

**Organizational Changes (% of firms)**

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### Adoption of Mechatronics (% of firms)

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<td>Robots</td>
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Increase of new vehicles taxes

22\textsuperscript{nd} August 2005:

- Legal approval for the importation and legalization of used cars (10 and 15 years old) from the U.S.
- These cars are free of tax-payments
Main Technological Capabilities:
- Locally – operational
- Internationally – dynamic
- Weaker post-NAFTA linkages with K-sources
- Poor integration into the supply chain
- Post-NAFTA changes in production strategies
  - Shift towards the after-market sector
Poor domestic absorptive capabilities to shift into new technological trajectory...
Learning Mechanisms in Industrial Firms and their Effects on Economic Performance: The Autoparts Sector in Mexico

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