



Source: Lara Jameson in Pexels, 2021.

Mexico's State Exports in the USMCA Era

2-SP02-32-029

This problem situation was written by David Saucedo De La Fuente (david.saucedof@tec.mx), using the AI program (Gemini), with the purpose of serving as discussion material in the classroom; it does not intend to illustrate good or bad administrative practices. The story on this document is based on different people's experiences; some data has been modified at the request of the people and institutions involved.

All Rights Reserved © Instituto Tecnológico y de Estudios Superiores de Monterrey; Av. General Ramón Corona No. 2514 Col. Nuevo México, Zapopan, Jalisco 45138, México. ITESM forbids any type of reproduction, storage, or transmission in whole or in part of this work, without written consent.

Centro Internacional de Casos
Tecnológico de Monterrey

Publication Date: July 15, 2026.
Last Review: July 15, 2026.



Tecnológico de Monterrey
Escuela de Negocios

Business Intelligence

In the dynamic economic environment of 2026, Mexico finds itself at a critical turning point: the renegotiation of the USMCA (United States-Mexico-Canada Agreement). Trade tensions, rules of origin demand, and changes in labor policies have put Mexican exports under the microscope (El Financiero, 2024; Forbes, 2024; Tapia, 2025). For companies with international operations, predicting the behavior of foreign trade is not just an academic exercise but also a survival strategy.

Sofía is a brilliant Business Intelligence graduate who has just joined Glogistic-X, as a Junior BI Consultant. The firm advises multinationals on where to invest and how to optimize their supply chains in Mexico. The Director of Strategy at Glogistic-X has assigned Sofía her very first major project, telling her, “Sofía, with all the uncertainty surrounding the USMCA, our clients need to know which Mexican states will continue to be export powerhouses and how trade flows will behave in the coming months. We need a robust predictive analysis, not intuitions.”

To fulfill this assignment, Sofía has consolidated a database using official and real-world data from National Institute of Statistics and Geography (INEGI) and Mexico’s Central Bank (Banxico), ensuring practical validity and credibility for strategic decision-making. The database combines two analytical approaches:

1. Cross-Sectional Data (Annual 2024–2025): Data from the 32 states of the Mexican Republic, to understand the structural determinants of exports.
2. Time Series Data: Historical aggregate export data to project future trends.

Sofía has found that she faces a dual methodological challenge in predictive analytics. On one hand, at the state level (cross-sectional data), variables such as business activity performance, real wages, and the exchange rate are considered to affect export volumes. Additionally, she suspects that population density and innovation drive trade, while crime could act as an obstacle. Furthermore, the employment level in the primary, secondary, and tertiary sectors could be relevant for evaluating the impact of regional specialization on foreign trade.

On the other hand, Glogistic-X’s clients demand a precise forecast of total exports for quarterly periods in the years 2026–2027. Therefore, Sofía concludes that she must model the time series to capture the trends and potential seasonality that Mexican foreign trade typically displays due to North American production cycles.

Sofía has requested the support of Glogistic-X’s Business Intelligence team (BI team) to act as Senior Consultants for the project and complete two phases of the expected analysis.

Phase 1: Cross-sectional Data Analysis

The BI team has found that the first critical step before looking toward the future with time-series forecasting is to understand the current snapshot of the factors that determine Mexico’s export performance. They believe that the USMCA renegotiation will not affect all states equally: those with solid industrial bases, high innovation, and secure environments will react very differently compared to states with a weak business environment or severe institutional security problems.

The BI team’s expected deliverable is to build and validate a Multiple Linear Regression Model (OLS) using the cross-sectional database: [Mexico’s State Exports](#).

The objective of this model is not only descriptive but also predictive, as it will serve to explore how changes in the environment of each state directly impacts its competitiveness and export volume. The BI team believes that in this phase, it is necessary to find:

- 1) Which variables show the greatest relevance in increasing or decreasing the level of exports for Mexico at the state level during the 2024–2025 study period.
- 2) Which states show outlier export performance, and what factors explain this.
- 3) How the potential presence of multicollinearity, heteroscedasticity, and non-normality of residuals affect the validity of the results from the estimated linear regression models.
- 4) Why this assumption is vital for Sofía to conduct reliable statistical inference in front of Company executives.
- 5) What advantages arise from transforming exports and/or explanatory variables into natural logarithms for interpreting elasticities and proportional relationships among states.

Phase 2: Time Series Data Analysis

Talking with the Director of Strategy at Glogistic-X, the BI team has found that understanding export performance at the state level is only half the equation. In the context of the USMCA renegotiation, the firm's clients—particularly international corporations and investment funds—need to anticipate the total volume and direction of Mexico's trade flows for the coming months. An error in trend forecasting can translate into inventory saturation, financial losses due to unutilized logistics capacity, or poorly negotiated transportation contracts.

The second critical deliverable from the BI team is to develop a Forecasting Model using the historical time series of Mexico's total exports found via the following link: [Mexico's Export Flows](#)

The BI team's objective is to isolate market 'noise' and project valid statistical scenarios that will serve as the foundation for the company's strategic planning through the end of 2026; in order to do that, the BI team needs to find:

- 1) Whether the national export data show evidence of stationarity, or they require some type of data transformation (e.g. differencing, logarithms).
- 2) Which forecasting model (e.g. ARMA, ARIMA, SARIMA) offers the best fit and the lowest prediction error for the quarters of the 2026–2027 period.
- 3) Whether there is evidence of seasonal patterns in national or state exports, and how they should be incorporated into the SARIMA models to improve forecasting accuracy.
- 4) What implications the forecast results have within the context of the USMCA renegotiation.
- 5) How the company can use the export forecast scenarios to plan risk mitigation strategies—such as an increase or decrease in the exchange rate—in the face of USMCA uncertainty.

Data Storytelling

Sofia and the BI team are expected to deliver a set of information to Glogistic-X's Director of Strategy. Sofia believes that while Econometric analysis is the engine, Data Storytelling is the steering wheel.

With the aim of communicating the main findings from Phase 1 and the future projections from Phase 2, Sofia and the BI team believe there are five primary Data Storytelling objectives they must achieve:

1. Clearly communicate which variables show the greatest relevance in predicting export performance at the state level for Mexico during the study period.
2. Translate technical results into actionable insights. That is, convert coefficients and diagnostic tests into comprehensible messages for executives, such as, *"For every MXN \$1 increase in the exchange rate, companies experience an exchange rate depreciation, which contributes to an annual export increase of MXN \$1.5 million."*
3. Describe the temporal evolution of national exports. It is crucial to highlight stationarity and seasonality patterns that affect the interpretation of the estimated results.
4. Based on the selected forecasting model (e.g., ARMA, ARIMA, SARIMA), they hope to present trend and forecast charts that illustrate future scenarios.
5. Connect findings with the USMCA context. Relate the analysis results to the treaty's renegotiation, explaining risks and opportunities. For example, *"If the exchange rate remains volatile, forecasts suggest greater uncertainty for exports."*
6. Based on the selected predictive model, craft clear messages regarding which states possess the highest export potential and which risks must be taken into account.

References

El Financiero. (11 de febrero de 2026). "Futuro del T-MEC, en riesgo: Trump evalúa sacar a EU del tratado con México y Canadá". *Bloomberg*:

<https://www.elfinanciero.com.mx/economia/2026/02/11/futuro-del-t-mec-en-riesgo-trump-evalua-sacar-a-eu-del-tratado-con-mexico-y-canada/>

Forbes México Staff. 29 de enero de 2026. "Si revisión del TMEC se prolonga, incertidumbre puede afectar el crecimiento: HSBC México". *Forbes*:

<https://forbes.com.mx/si-revision-del-tmec-se-prolonga-incertidumbre-puede-afectar-el-crecimiento-hsbc-mexico/>

Tapia, Patricia. (8 de julio de 2025). "T-MEC cumple cinco años entre tensiones y dudas sobre su futuro": *Expansión*:

<https://expansion.mx/economia/2025/07/01/t-mec-cumple-cinco-anos-entre-tensiones-y-riesgo>