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Profile of Manufacturing Export Enterprises of Mexico
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Abstract

The Profile of Manufacturing Export Enterprises of Mexico aims at producing information on the foreign trade flows of manufacturing enterprises related to the most representative economic variables, thereby contributing to the measurement of international trade in Mexico and identifying its influence at the employment and production levels.

The measurement of economic characteristics of Exporting Manufacturing Enterprises that participate in international merchandise trade is done through the linking of customs registers with the Statistical Business Register of Mexico. Based on this linkage, and with the information of the Economic Censuses and the annual surveys on manufacturing industry, relevant information from enterprises that participate in international trade is obtained, strengthening the information infrastructure of economic statistics in Mexico.

This project gives a broad view on the flows of international merchandise trade, and provides elements for the analysis of public policies as well for decision making in the private sector. The results on exports and imports of manufacturing enterprises are presented by size of enterprise according to the number of employees, by sector and subsector of activity (based on the North American Industry Classification System, NAICS), and by geographic areas of the world and selected countries.

Likewise, these results based on the linkage of the SBR with several sources are the pillar for elaborating calculations in the field of National Accounts on the Value Added of Global Manufacturing Exports, which contributes for a better understanding of the participation of Mexico in the Global Value Chains.

Introduction

In 2011, the United Nations Statistics Division (UNSD), the World Trade Organization (WTO) and the European Statistical Office (Eurostat) jointly developed worldwide scope projects aimed at generating statistics for measuring different aspects of the globalization phenomenon and the interrelation of countries involved in international trade.

On the other hand, the Organization for Economic Cooperation and Development (OECD) has promoted, among its member countries, the linkage of business records to records associated with trade flows, in order to obtain statistics with a broader perspective on international trade and on the characteristics of enterprises involved in international trade.

In this regard, important efforts have been made by National Statistical Offices from several countries, aimed at providing more information on their international trade activities; one outstanding example being the linkage achieved in Italy between external trade records and its Statistical Business Register.

Thus, in response to the global production effects manifested in the fragmentation of production processes of goods and services involving various enterprises located in different countries, the National Institute of Statistics and Geography of Mexico (INEGI) conducts the measurement of characteristics of enterprises involved in external trade, linking the information from customs records to the Statistical Business Register of Mexico (RENEM).

Objective

The Profile of Manufacturing Export Enterprises of Mexico aims to provide information regarding the characteristics of manufacturing enterprises involved in export and import activities, with the purpose of contributing to the analysis of the effects of international trade of merchandises on the production and employment in Mexico.

Observation unit

The observation unit is the enterprise; its information is contained in RENEM's records which represent establishments. RENEM was completely updated with the information from the 2009 Economic Census. A enterprise is a group of establishments who share a common business name.

This unit of observation is comparable to customs records.

Enterprises, according to the number of establishments that constitute them, are classified as follows:

- 1) Uni-establishment enterprises. Those with only one establishment.
- 2) Multi-establishment enterprises. Enterprises constituted by more than one establishment.

Enterprises from customs records are linked to RENEM using enterprise name and physical address information. Enterprises are tracked based on information collected during the time period 2007-2013 through the Annual Survey of Manufacturing Industries.

Information Collection

In accordance to international recommendations establishing the use of Business Registers and International Trade Registers as sources of information for generating and updating Profile of Manufacturing Export Enterprises Statistics, INEGI used information collected through the following statistical projects:

- 1) Merchandise trade balance of Mexico. It allows to know the evolution and composition of the exports and imports of merchandise that Mexico carries out with the rest of the world. This project is based on the statistical use of customs records and captures all commercial transactions that comply with the established regulations. This project meets the recommendations issued by international organizations, which guarantees comparability of figures at international level.
- 2) Economic Censuses. They collect basic statistical information on establishments which produce goods, trade merchandises and/or provide services, in order to generate economic indicators for Mexico with wide geographical, sectoral, and thematic disaggregation, and by business strata according to their number of employees.
- 3) Annual Survey of Manufacturing Industries. Its main objective is to provide statistical information regarding the situation, behavior and structural changes in Manufacturing Industries. This survey collects information on the most representative establishments in the manufacturing sector, achieving income coverage greater than 90% and number of employees coverage greater than 75%.
- 4) Statistics of the Program of Manufacturing, Maquiladora and Export Services Industry (IMMEX). This program collects information from enterprises with permit to export, granted by the Ministry of Economy. For this study, only enterprises that are not part of the Annual Survey of Manufacturing Industries sample are considered.

INEGI identifies enterprises that carry out commercial activities with other countries through the Merchandise Trade Balance of Mexico Project and the IMMEX Program; the linkage of those identified enterprises, via RENEM, to records from the Economic Censuses and from the Annual Survey of Manufacturing Industries, make it possible to characterize those enterprises according to the following variables: economic activity class according to NAICS, number of employees and production value; this allows to have an enhanced knowledge of the commercial activity of Mexico with other countries.

Integration of Information

Once the information has been linked, INEGI integrates the information from the Annual Survey of Manufacturing Industries and from the IMMEX Program in order to increase coverage.

For this study, an annual series for the time period 2007-2017 was constructed for enterprises, taking into account data from both the Economic Censuses and the Annual Survey of Manufacturing Industries.

Subsequently, enterprises linked to external trade were identified, using the following variables: foreign

sales (export case), purchases of raw materials from the external market (import case) and manufacturing enterprises from the IMMEX Program.

The resulting enterprise group was identified in the Merchandise trade balance of Mexico, taking into account those enterprises that have at least one non-zero export or import transaction value, thus obtaining export and import values for enterprises.

The obtained enterprise group is the basis for the generation of results, using information from both the Economic Censuses and the Annual Survey of Manufacturing Industries: economic activity class, number of employees and production value.

Validating Information

Validation of Information was carried out on two levels:

- 1) Validation at enterprise level. The following processes were carried out; a) it was verified that, in effect, all the establishments from a multi-establishment enterprise shared the same business name, b) reported production and employment values were reviewed, as well as their historical evolution, and c) a detailed follow-up of the inputs and outputs in the Export Manufacturing Enterprises Program universe of study was carried out.
- 2) Validation at the aggregate level. The trends of strata by number of employees, by production level and by economic activity subsectors were analyzed, and comparisons with other statistical projects were established.

Main results

The Export Manufacturing Enterprises Program presents information in three main sections:

By NAICS economic activity sector and subsector. Results are presented on the number of exporting and importing enterprises, the value of exports and imports by economic activity sector and subsector, including the following disaggregation: a) strata by number of employees, b) strata by production value, and c) according to the number of partner countries.

- 1) By geographical areas and selected countries. Exporting and importing enterprises are presented across geographical areas and selected countries, according to enterprise size (measured in terms of number of employees and production value).
- 2) By range of exports and imports. Number of enterprises and value of exports and imports, disaggregated by strata according to number of employees and production value.

In the Annex, there are some examples of the results obtained in this project.

Conclusions and next steps

1. In countries where there is no public unique identifier key for each economic unit, it is a challenging task to link information from different sources. However, by using RENEM as a bridge between internal and external sources relative to INEGI, problem complexity reduction is achieved.
2. Current IT tools facilitate the linkage of information sources to RENEM.
3. Linking different sources allows obtaining new information that helps to have more evidence for better informed decision-making, in this case on the effects of international trade on the production and employment in Mexico.
4. The next natural step is to obtain the Profile of Manufacturing Export Enterprises of Mexico by State, since RENEM contains geographical data for all establishments that make up each of the enterprises.

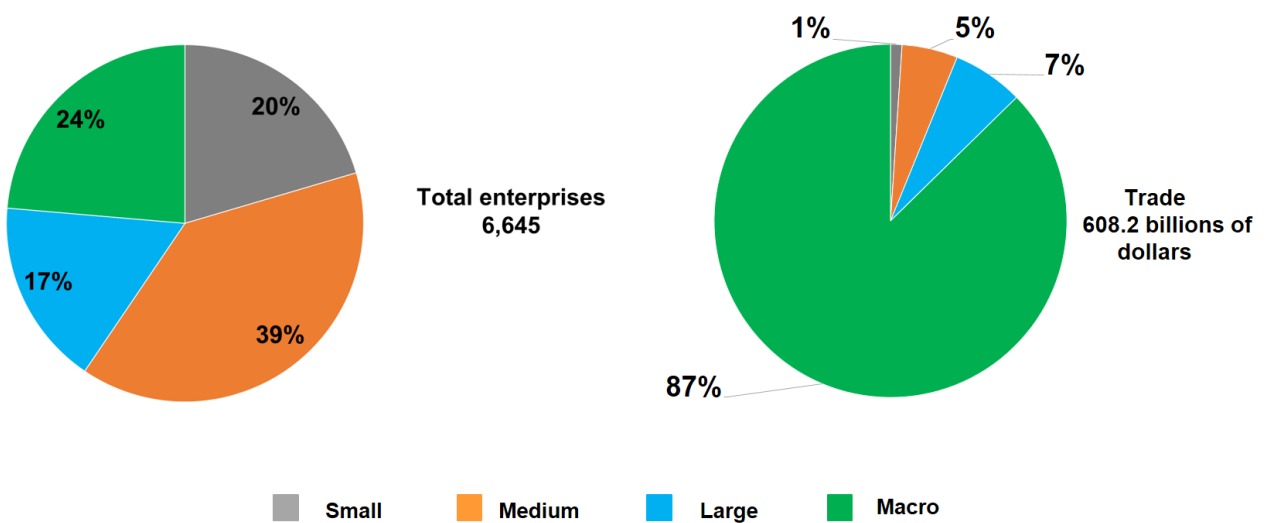
Annex

Main result of the Profile of Manufacturing Export Enterprises of Mexico.

1) Manufacturing enterprises by exporting and importing status, 2013-2017



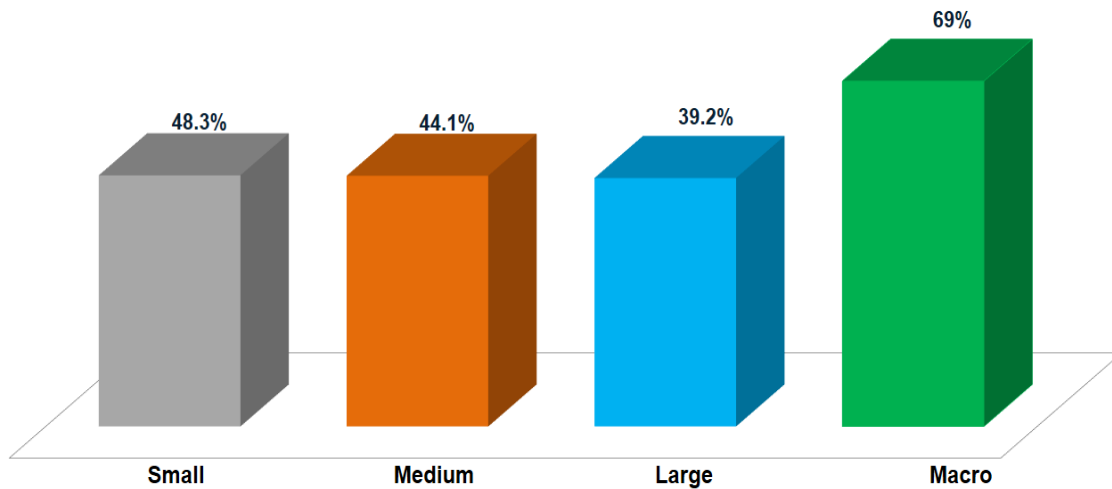
2) Distribution of manufacturing enterprises and their value of trade by size according to the number of employees, 2013-2017



3) Average of export and import by size of manufacturing enterprises, 2017

Size of enterprise (Number of employees)	Million US dollars	
	Exports	Imports
1 to 50	1.7	4.6
51 to 250	14.1	17.0
251 to 500	17.8	21.8
More than 500	289.9	241.0

4) Share of exports in the production of manufacturing enterprises according to the number of employees, 2017



5) Distribution of exports of manufacturing enterprises with more than 500 employees by main destination countries, 2017

