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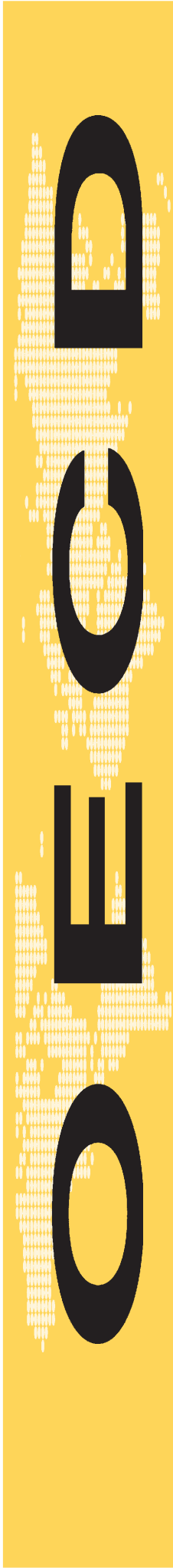
**MAIN  
ECONOMIC  
INDICATORS**



**Sources  
and Methods**

**MEXICO**

DECEMBER 1996



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STATISTICS DIRECTORATE

# MAIN ECONOMIC INDICATORS

## Sources and Methods

### MEXICO

DECEMBER 1996



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

# ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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# 1. Introduction

This publication contains a detailed description of the methodology used in the compilation of the time series published for Mexico in Part One and Part Two of *Main Economic Indicators*. The indicators cover: national accounts, industrial production, business surveys, construction, domestic trade, labour, wages, prices, domestic finance, foreign finance, interest rates, foreign trade and balance of payments.

Methodological information is presented in the publication according to the order that time series are

published in *Main Economic Indicators*; information is structured according to the same categories and sub-categories used in Part Two of *Main Economic Indicators*.

Index numbers are recalculated by the OECD in base 1990=100, in conformity with international recommendations for a standard reference year.

This publication describes data published in the December 1996 issue of *Main Economic Indicators*.

## 2. General methodological issues

### THE STATISTICAL SYSTEM IN MEXICO

Several agencies are responsible for the compilation and dissemination of statistics in Mexico.

- The **National Office for Statistics, Geography and Informatics** (*Instituto Nacional de Estadística, Geografía e Informática*, INEGI) has existed in its current structure since 1983. According to the law on Statistical and Geographical information, it is the responsibility of INEGI to provide an information base of Statistics, Geography and Informatics and to disseminate such information.

The Statistics Department of INEGI (*Dirección General de Estadística*) is in charge of issuing criteria to standardise the process of producing statistical information, promoting the consolidation and development of the statistical information system, planning and executing Censuses and Sampling surveys, and compiling demographic and social statistics. INEGI is in charge of National accounts, Industrial production, Domestic trade, Labour and Wage statistics.

- The **Bank of Mexico** (*Banco de Mexico*) is an autonomous body and is authorised by law to publish economic and financial statistics. The Bank of Mexico is in charge of the compilation of Financial and Balance of payments statistics, Prices, Cost of construction, Business surveys, and Foreign trade data (along with INEGI and the ministry of Finance). Responsibility for the compilation of Consumer price and Producer price indices is currently being transferred to INEGI.
- Other agencies also compile statistics published in *Main Economic Indicators*. These include the company Mexican Petroleum (PEMEX) which supplies data for crude petroleum production and the Mexican Social Security Institute (*Instituto Mexicano del Seguro Social*, IMSS) which provides data on insured workers.

### SHORT-TERM ECONOMIC INDICATORS

Data published in *Main Economic Indicators* result mainly from three INEGI surveys and four Bank of Mexico surveys. The former include the Monthly In-

dustrial Survey (*Encuesta Industrial Mensual*, EIM), the Commercial Establishment Survey (*Encuesta Mensual de Establecimientos Comerciales*, EMEC) and the National Survey on Urban Employment (*Encuesta Nacional de Empleo Urbano*, ENEU); while the latter comprise surveys relating to business conditions, consumer prices, producer prices and cost of construction.

These surveys are briefly described in separate annexes which also give a partial view of survey forms.

### Informal sector

In Mexico, many people are engaged in marginal activities (street vendors, repair persons, etc.) and belong to the informal sector as defined by the International Labour Organisation (ILO) in the 1970's. The informal sector plays a role in all economic areas, especially in National accounts, Industrial production, Employment and Domestic trade.

According to the ILO definitions, INEGI surveys show that in 1992 about 35% of the total labour force was engaged in marginal activities.

### Data quality

INEGI is concerned with improving data quality. Several surveys on the street vendors (*Encuestas de Micronegocios*) have been carried out, first in 1988 and subsequently in 1992 and 1994. Many references to the informal sector are also included in the form of the regular ENEU survey. Different unemployment rates taking into account these marginal activities are compiled by INEGI to help develop a measure of this sector.

Geographical and classification coverage of the INEGI surveys has gradually been improved over time: the EMEC survey now collects information in 33 cities (only 3 cities were covered in 1986); the ENEU survey covers 41 cities (only 3 cities were covered in 1973) and the EIM survey collects information for 209 classes of activity (in 1986 only 57 classes were covered).

The coverage of the EMEC survey and the ENEU survey is limited to cities -- rural areas are not covered. However, a biennial survey on employment is conducted by INEGI in the whole country, including rural areas.

A survey on the activity of the construction sector (*Encuesta Nacional del Sector Formal de la Industria de la Construcción*, ENSFIC) is conducted on a quarterly basis from 1983. This survey is conducted exclusively in the formal sector and data are compiled for the value of construction, employment and wages in the construction sector. However, no data for permits issued, building started or work in progress are compiled from the results of the ENSFIC survey.

## Comparability

Data are generally compiled according to international standards: National accounts data are compiled according to the 1993 System of National Accounts (SNA); unemployment definitions follow the International Labour Organisation (ILO) guidelines; all classifications used in the industrial and commercial surveys are compatible with international classifications such as ISIC or NACE; Balance of payments data are compiled according to the *Balance of Payments Manual, Fifth edition* issued by the IMF.

Employment data are derived from the Monthly Industrial Survey (EIM). These data are not directly internationally comparable in the sense that data refer only to major establishments in the manufacturing sector. Data for total employment are not derived from the ENEU survey.

## DATA DISSEMINATION

### • INEGI

Statistical information is disseminated in a variety of ways: paper publications, diskettes, CD-ROMs, and on-line access.

#### – Paper publications

Numerous publications of economic statistics are issued on a regular basis by INEGI. Main results are summarised in the monthly *Cuaderno de Información Oportuna*. More detailed information and methodological references are available in specialised publications for Industrial production, Unemployment, Foreign trade, etc. In the present publication, reference to each of these INEGI publications is made where appropriate.

#### – Databases

The *Banco de Datos* database is made available by INEGI and contains more than 20 000 time series covering economic topics such as industrial production, national accounts, foreign trade, prices, etc. Updates may be obtained monthly on diskette or from the INEGI server through Internet (see below).

Additionally, direct access to the INEGI database is made available to users in response to specific requests.

#### – Internet

An INEGI server containing statistical information, release dates and methodological information can be accessed through Internet at the following address: <http://www.inegi.gob.mx/>. It is also possible to update a local version of the *Banco de Datos* database (see above) from this server.

### • The Bank of Mexico

The Bank of Mexico makes statistical information available through paper publications (*Carpeta de Indicadores Economicos, Indice de Precios*) and through direct access to its databases: SINIEE and IBAMEX. These databases can be accessed via Internet.

A server containing statistical series, information on the laws relating to the Bank's operations, and documents for analysis can be accessed via Internet at the following address: <http://www.banxico.org.mx/>.

### • Ministry of Finance

Statistical information are available on the Internet server of the Ministry of Finance (*Secretaría de Hacienda y Crédito Público, SHCP*): <http://www.shcp.gob.mx/>.

Data originating from INEGI, the Bank of Mexico and other financial institutions can also be found on this server.

The Statistics Directorate of the OECD is greatly indebted to the National Office for Statistics, Geography and Informatics, INEGI, for the excellent co-operation of their staff.

Without this assistance, it would not have been possible to publish explanatory notes in such detail with any guarantee of accuracy.

### 3. Explanatory notes

The methodological information described in this publication is organised by chapter according to the categories listed in the introduction. In each chapter, information is presented according to a standard structure for *Sources and Methods* publications

(see below for the complete list of metadata items). Relevant items are filled in when information is available; titles of missing items do not appear in the text.

#### METADATA ITEMS

SOURCE	DATA COLLECTION (continued)
<b>Source agencies</b> <b>Key national publication sources</b> <b>Series title in national publications</b> <b>Breakdown available</b> <b>Methodological references</b> <b>Run of data available</b> <b>Periodicity</b> <b>Unit of measurement</b>	<b>Administrative source details</b> Description Update procedures Quality assessment Access and control for statistical usage Statistical techniques for processing data <b>Multiple source details</b> Description Standard combination framework Statistical techniques for combining multiple sources <b>Reporting date in relation to the event measured</b> <b>Time lapse between event and processing</b>
CONCEPTS AND COVERAGE	DATA MANIPULATION
<b>Definition</b> <b>Coverage</b> Reference period Geographical coverage Classification coverage Statistical population Particular exclusions	<b>Aggregations / Grossing up</b> Grossing up method Aggregation method Weights for aggregation <b>Seasonal and other adjustments</b> <b>Other manipulations</b>
STANDARDS	DATA QUALITY AND TIMELINESS
<b>Standard systems / framework</b> <b>Standard classifications / nomenclatures</b> <b>International comparability</b> <b>Departures from international standards</b>	<b>Sampling errors and their corrections</b> <b>Other errors and their corrections</b> <b>Missing data in time series</b> <b>Breaks in time series</b> <b>Preliminary estimates</b> <b>Revision policy</b> <b>Corroborating data</b> <b>Timeliness</b> <b>Release dates</b>
DATA COLLECTION	
<b>Reporting units</b> <b>Reporting method</b> <b>Survey details</b> Description of questionnaire Master list Survey description Non-response rate	

# NATIONAL ACCOUNTS

- (a) Total G.D.P, current prices
- (b) Total G.D.P, constant prices
- (c) Implicit price level
- (d) Private final consumption expenditure
- (e) Government final consumption expenditure
- (f) Gross fixed capital formation
- (g) Change in stocks
- (h) Exports of goods and services
- (i) Imports of goods and services

---

## SOURCE

### Source agencies

National accounts data are compiled by INEGI.

### Key national publication sources

Data are available in the quarterly publication INEGI, *Oferta y Demanda Final de Bienes y Servicios*.

### Series title in national publications

- (a) Producto interno bruto, total pesos corrientes
- (b) Producto interno bruto, total pesos constantes
- (d) Consumo privado
- (e) Consumo del gobierno
- (f) Formación bruta de capital fijo
- (g) Variación de existencias
- (h) Exportación de bienes y servicios
- (i) Importación de bienes y servicios

Data for *Implicit price level* are calculated by the OECD and are therefore not published in national publications.

### Breakdown available

Data are published in national publications for Gross Domestic Product by kind of activity as well as by final expenditure.

### Methodological references

A complete methodology of the national accounts can be found in the quarterly publications INEGI, *Oferta y Demanda Final de Bienes y Servicios*, and in INEGI, *Producto Interno Bruto*.

Information on methodology is also available in INEGI (1995), *ABC de la Cuentas Nacionales*.

## Run of data available

Data are available from first quarter 1993, except for *Gross domestic product, total at constant prices* for which data are available from first quarter 1980.

## Periodicity

Data are compiled on a quarterly basis.

## Unit of measurement

Data are expressed in Mexican Pesos. The constant price series are expressed at 1993 prices.

## CONCEPTS AND COVERAGE

### Definition

Data measure quarterly expenditure on goods and services at both current and constant prices. Data compilation is based on the Commodity Flow Method (CFM). This method consists in identifying the complete life cycle for a product - from the economic activity which generated the product to its final use (including intermediate consumption).

Final demand on Gross Domestic Product (G.D.P.) is classified according to:

- *Private final consumption expenditure* data cover the value of purchases of goods and services made by households and private institutions. Included is the value in goods received as payment in kind, the value of goods produced for own-consumption and the imputed rent of owner-occupied dwellings.

Data are derived from sales indices calculated for each group of activities whose final use is deemed to be private.

- *Government final consumption expenditure* data cover the value of goods and services produced by the government for its own use.

Expenditure data are estimated using administrative records; public finance data for the expenditures of the Federal government and the Mexico City government; Social security accounting; and specific surveys for local government expenditures (except Mexico City).

- *Gross fixed capital formation* data cover the purchase of goods and services used in capital formation. Included are purchases made to extend the effective life of existing capital goods.

Data are derived from the value of construction put in place, together with that of plant, machinery and equipment.

- *Change in stocks* represents in value terms the difference between the volume of goods at the beginning and at the end of the period.

Figures are derived as the difference between Supply (calculated as the sum of Total G.D.P. and Imports) and Demand (calculated as the sum of Private and Government consumption, Gross fixed capital formation and Exports).

- *Exports of goods and services f.o.b.* cover the value of all exported goods and services. Included is the value of exports of In-bond export industries (see the chapter on Industrial production), and exports of silver and non-monetary gold.

Data are calculated using Balance of Payments estimates.

- *Imports of goods and services c.i.f.* cover value of all imported goods and services. Included is the value of imports of In-bond export industries (see the chapter on Industrial production) as well as goods and services directly bought abroad by private households or federal government.

Data are calculated using Balance of Payments estimates.

Figures for *Implicit price level* are calculated by the OECD by dividing the G.D.P. figures in current prices by the G.D.P. figures in constant prices.

## STANDARDS

### Standard system / framework

National accounts data are compiled according to the 1993 System of National Accounts (SNA) developed by the United Nations (UN).

## DATA COLLECTION

### Reporting units

Government agencies, enterprises, associations and Chambers of Commerce, financial and insurance institutions.

## DATA MANIPULATION

### Seasonal and other adjustments

Seasonal adjustments are carried out by the OECD using the X-11 variant of US Census Method II.

Seasonally adjusted data are corrected for trading days.

### Other manipulations

Quarterly data in the national publications, as well as in *Main Economic Indicators*, are expressed at annual rates: raw data for each quarter are multiplied by four by the national source before publication.

## DATA QUALITY AND TIMELINESS

### Revision policy

New information is incorporated when it becomes available.

All figures are revised to be consistent with annual national accounts data. These revisions generally occur when data for the fourth quarter are published.

### Timeliness and release dates

Data for a particular quarter  $q$  are published by INEGI between 45 and 47 days after the end of the reference quarter.

A calendar with the release dates is issued by INEGI on a regular basis. This information can also be accessed via Internet on the INEGI server:

<http://www.inegi.gob.mx/>.

# PRODUCTION

# Industrial production

- (a) Total
- (b) Manufacturing
- (c) Mining
- (d) Electricity, gas and water
- (e) Construction

## SOURCE

### Source agencies

Industrial production statistics are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Indicadores de Actividad Industrial*.

### Series title in national publications

Indice volumen de actividad industrial:

- (a) Total industria
- (b) Industria manufacturera
- (c) Minería
- (d) Electricidad, gas y agua
- (e) Construcción

### Breakdown available

Aggregated indices are calculated for the total index as well as for different levels of the national industrial classification (see Classification coverage below).

*Mining:* Aggregated indices are published at branch level (6 branches of mining) and at Major division level.

*Manufacturing:* Aggregated indices are published at Division level (9 divisions for manufacturing) and at Major division level.

Data are also classified by final use of goods: Intermediate consumption, Durable or non-durable goods, Capital goods and In-bond export industry (*maquiladoras*, see Reporting method below).

*Construction and Electricity, gas and water:* aggregated data are published only at Major division level.

## Methodological references

A complete methodology of the industrial production series can be found in the monthly publication INEGI, *Indicadores de Actividad Industrial*.

Information on methodology is also available in INEGI (1994), *ABC de la Estadística de la Industria Maquiladora de Exportación*.

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Indices were calculated in base year 1980=100 up to December 1992 and in base 1993=100 from January 1993.

## CONCEPTS AND COVERAGE

### Definition

The total index measures the change in the physical volume of production of manufacturing, mining, construction and electricity, gas and water industries.

All indices are consistent with quarterly and annual Gross Domestic Product data.

### Coverage

#### Geographical coverage

The whole country.

### Classification coverage

The classification used is the 1993 Mexican System of National Account Classification (*Sistema de Cuentas Nacionales de México, SCNM*).

For all Major divisions, excluding manufacturing, the different levels of the SCNM are: Major division, branch (2-digit level), group (3-digit level) and class of activity (4-digit level). Each class of activity corresponds to one or several products as identified in the 1994 Economic Census.

For Major division manufacturing, the different levels are Major division, division (1-digit level), branch (2-digit level), group (3-digit level), class of activity (4-digit level) and product.

The SCNM classification is compatible with the Mexican Classification of Activities and Products (*Clasificación Mexicana de Actividades y Productos, CMAP*) used in the Monthly Industrial Survey (*Encuesta Industrial Mensual, EIM*). For more details on the CMAP, refer to the description of Industrial surveys in Annex 1 (page 58).

There are no differences between the two classifications at branch and division levels, however, differences are observed at the level of groups, classes of activity and for specific products (for instance micro-computers).

Data for manufacturing relate to all the classes of activity (227) of the SCNM; the majority of these classes (205) are covered by the EIM, the remainder by various sources.

Table 1 gives details of the SCNM classification.

### Statistical population

*Mining* - Major division 2 of the SCNM: all establishments whose main activity is the extraction of solid, liquid or gaseous minerals, quarrying, or the extraction of crude petroleum or natural gas are covered.

*Manufacturing* - Major division 3 of the SCNM: all establishments or production units in the manufacturing sector are covered. These are units engaged in the fabrication of new products through the transformation of organic or non-organic materials. These products can be hand-made or machine-made both in establishments and private houses and are destined for the retail or wholesale trade.

Establishments engaged in assembling parts, auxiliary units, administrative offices, associated retail outlets, and repair workshops which produce goods and

services destined exclusively for the industrial entity to which they belong are also included.

*Construction* - Major division 4 of the SCNM: all establishments engaged in the construction of buildings (total or partial) and public works are covered, whether for new constructions or for alterations, repairs and additions.

The value of construction work on non-residential buildings carried out by companies in the manufacturing, mining and agricultural sectors is included in the production of these sectors.

*Electricity, gas and water* - Major division 5 of the SCNM: all establishments engaged in the generation, transmission and distribution of electricity, as well as distribution of gas or drinkable water are covered.

Table 1  
SCNM classification for  
industrial production

Major divisions of the SCNM	Number of classes of activity
2. Mining .....	13
3. Manufacturing .....	227
<i>of which:</i>	
3.1 Food, beverages and tobacco .....	49
3.2 Textiles, clothing and leather .....	35
3.3 Wood and wood products .....	10
3.4 Paper and paper products .....	8
3.5 Chemicals .....	35
3.6 Non-metallic mineral products .....	17
3.7 Basic metals .....	7
3.8 Metallic products, machinery and equipment .....	56
3.9 Other manufacturing industries .....	10
4. Construction .....	8
5. Electricity, gas and water .....	3

## STANDARDS

### Standard systems / framework

The methodology used in the compilation of industrial production statistics is aligned with the 1993 System of National Accounts (SNA) of the United Nations (UN).

### Standard classifications / nomenclatures

The 1993 SCNM is compatible with the International Standard Industrial Classification (ISIC) 1990, Rev 3 at the 4-digit level.

## DATA COLLECTION

### Reporting method

Data are compiled from the results of surveys conducted by INEGI, other organisations, administrative records, and information on input or sales.

*Mining:* data are compiled mainly from the results of the Monthly Survey on Mining and Metallurgy (*Encuesta Minerometalúrgica Mensual*, EMM) conducted by INEGI and the Ministry of Energy. See Annex 1 (page 58) for more details on this survey.

Additionally, use is made of the EIM for data on the production of coke and coal, while the company *Petróleos Mexicanos* (PEMEX) provides data on the production of crude petroleum, natural gas and condensates.

*Manufacturing:* production data are collected in two different ways, depending on the activity of the establishments:

- In-bond export industries (*maquiladoras*):

In-bond export industries are industries engaged in transforming, assembling or repairing merchandise imported into Mexican territory, to be eventually re-exported after such additional processing.

These industries provided the second largest source of foreign currency for Mexico (after petroleum) and employed 550 000 people in 1993.

Production data for these industries are obtained from the full-scope survey Monthly Statistics of Exports from In-bond export industries (*Estadística Mensual de la Industria Maquiladora de Exportación*, EMIME) conducted by INEGI. See Annex 1 (page 58) for more details on this survey.

- Manufacturing industries, excluding In-bond export industries (*maquiladoras*):

The main source used to compile the figures is the Monthly Industrial Survey (*Encuesta Industrial Mensual*, EIM) conducted by INEGI. Additional data are derived through the use of industrial statistics supplied by the Chambers of Commerce, Producers' Associations; private and public institutions; and by information on flows of raw materials for certain food industries. See Annex 1 (page 58) for more details on these sources.

Around 85% of G.D.P. for the manufacturing sector, excluding In-bond export industries was covered by the EIM according to the 1994 Economic Census.

*Construction:* information on public works and on flows of raw materials is obtained from INEGI surveys and from industrial statistics of the Chambers of Commerce and Producers' Associations. Foreign trade statistics, calculated by INEGI, are also used for data on certain construction materials.

*Electricity, gas and water:* industrial production data are derived from information on sales and volume of production collected by the Federal Commission for Electricity, PEMEX, the National Electricity Company, and the National Commission for Water.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

All aggregated indices are calculated using the fixed-weight Laspeyres formula.

*Total industrial production:* the index of total industrial production is calculated by aggregating the indices for the Major division of industry (see Table 1).

*Mining, Manufacturing:* elementary indices are calculated at class of activity level as the ratio of the quantity produced for the reported month over the average quantity of the base period (1993).

These indices are then aggregated at group level, branch level, division level (for manufacturing) and Major division level.

*Electricity, gas and water:* indices for electricity are derived from the volume of sales to final users: enterprises, households, public lighting, irrigation for agriculture, etc. Indices for gas and water are derived from data on the volume of production in these industries.

These indices are then aggregated at Major division level.

*Construction:* indices at class of activity level for construction are derived from estimates of input to construction (raw materials, labour force) as identified in the 1993 input/output table.

These indices are then aggregated at branch level and Major division level.

### Weights for aggregation

Weights used to calculate aggregated indices at group and higher levels are proportional to the value added of each SCNM branch or division for the base year (1993), derived from the 1993 Gross Domestic Product data.

Table 2 gives a summary weighting pattern.

Table 2  
**Indices of industrial production  
weighting pattern**

*Per cent*

SCNM Major divisions	1993 Weight
2 - Mining .....	5.2
3 - Manufacturing .....	71.0
4 - Construction .....	17.9
5 - Electricity, gas and water .....	5.9
Total industry .....	100.0

### Seasonal and other adjustments

Seasonal adjustments are carried out by INEGI with X-11 ARIMA/88 and take into account adjustments for Easter.

Seasonally adjusted series are corrected for trading days.

## DATA QUALITY AND TIMELINESS

### Sampling errors and their corrections

The EIM survey processing has been computerised with built-in checks to detect errors at each stage of the process.

### Preliminary estimates

Preliminary figures are indicated with a "P" in the publication *Indicadores de Actividad Industrial*, the first preliminary estimates (*datos oportunos*) are indicated with an "O".

### Revision policy

All monthly indices are periodically revised to be consistent with quarterly and annual national accounts data when these become available.

### Timeliness and release dates

Data for a particular month  $m$  are published by INEGI between the 5th and the 7th day of the month  $m+3$ . INEGI also publishes a first preliminary figure (*dato oportuno*) for non adjusted series during the month  $m+2$ .

A calendar of release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:  
<http://www.inegi.gob.mx/>.

# PRODUCTION

## Leading indicators

Composite leading indicator: Mexico

---

### SOURCE

#### Source agencies

Data are calculated by the OECD.

#### Run of data available

Data are available from January 1985.

#### Periodicity

Data are compiled on a monthly basis.

#### Unit of measurement

Data are expressed as an index, trend restored.

### CONCEPTS AND COVERAGE

#### Definition

Leading indicators are aggregate time series displaying a reasonably consistent leading relationship with the reference series for the macro-economic cycle. The total industrial production index is used as reference series.

The OECD system of leading indicators is based on the growth cycle approach and trend estimation is performed with the Phase-Average-Trend method developed by the US National Bureau of Economic Research.

Components of the composite leading indicators belong to two categories: actual measures of economic conditions that would later permit cyclical expansion or contractions (e.g. financial series, level of employment) and series designed themselves to be leading indicators (e.g. measures of the business situation from qualitative surveys).

For general information on the methodology used by the OECD see *OECD Leading Indicators and Business Cycles in Member countries, Sources and Methods No. 39, January 1987*.

For a description of the component series and performance over time of the leading indicator for Mexico, see *An update of OECD leading indicators, OECD Meeting on leading indicators, STD/MEI/LIM (96)3*, Gérald Petit, Gérard Salou, Christophe Degain and Pierre Beziz.

# PRODUCTION

# Commodity output

Crude steel

---

## SOURCE

### Source agencies

Crude steel statistics are compiled by the Latin American Iron and Steel Institute (*Instituto de America Latina del Fierro y Acero*, LAISI) in Chile. These data are then transmitted to the OECD via the International Iron and Steel Institute (IIST).

### Key national publication sources

Data are available in the monthly publication International Iron and Steel Institute, *Monthly crude steel production*.

### Series title in national publications

Monthly crude steel production, Mexico.

### Run of data available

Crude steel data are available from January 1988.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are published in tonnes.

## CONCEPTS AND COVERAGE

### Definition

Data cover the production of steel ingots, semi-products from continuous casting and liquid steel for casting.

## Coverage

### Reference period

Data refer to the production of the whole month.

## DATA COLLECTION

### Reporting units

All steel producing companies in Mexico are surveyed.

### Reporting method

Statistics are compiled by the Latin American Iron and Steel Institute (*Instituto de America Latina del Fierro y Acero*, LAISI) in Chile from the results of a postal survey conducted by the National Chamber of Steel in Mexico.

## DATA QUALITY AND TIMELINESS

### Timeliness

Data for a particular month  $m$  are published by the *International Iron and Steel Institute* during the month  $m+1$ .

# PRODUCTION

# Commodity output

Cement

## SOURCES

### Source agencies

Data are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Encuesta Industrial Mensual*.

### Series title in national publications

Fabricación de cemento hidráulico.

### Methodological references

Information on the methodology used to compile the data can be found in the monthly publication INEGI, *Encuesta Industrial Mensual*.

### Run of data available

Data are available from January 1987.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are expressed in tonnes.

## CONCEPTS AND COVERAGE

### Definition

Data measure the production of hydraulic cement, including Portland gray cement, white cement, mortar, clinker and other kinds of cement.

## Coverage

### Reference period

Data refer to production for the whole month.

### Statistical population

Data cover the output of 35 establishments allocated to product 369111 "Hydraulic Cement" of the CMAP classification.

Refer to Annex 1 (page 58) for more details on the CMAP.

## DATA COLLECTION

### Reporting method

Data are compiled from the results of the Monthly Industrial Survey (*Encuesta Industrial Mensual*, EIM). Refer to Annex 1 (page 58) for a complete description of this survey.

## DATA QUALITY AND TIMELINESS

### Preliminary estimates

Preliminary figures are indicated with a "P" in the publication *Encuesta Industrial Mensual*.

### Timeliness and release dates

Data for a particular month  $m$  are published by INEGI between the 27th and the 29th day of month  $m+2$ .

A calendar of release dates is issued by INEGI on a regular basis. This information can also be accessed via Internet on the INEGI server:

<http://www.inegi.gob.mx/>.

# PRODUCTION

# Commodity output

Crude Petroleum

---

## SOURCE

### Source agencies

Data are compiled by the company *Petróleos Mexicanos* (PEMEX).

### Key national publication sources

Data are available in the monthly publication INEGI, *Cuaderno de Información Oportuna*.

### Series title in national publications

Producción de petróleo crudo.

### Breakdown available

Aggregated data are available at district, region and national level for each type of crude petroleum.

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Production data are expressed in national publications as barrels per day. Data published in *Main Economic Indicators* have been converted into tonnes per day using the coefficient: 1 tonne = 7.37 barrels. This conversion coefficient has been supplied by the International Energy Agency, OECD.

## CONCEPTS AND COVERAGE

### Definition

Data cover the production of all liquid hydrocarbons extracted from the fields, which are classified into three categories, depending on their density: heavy, light and extra light. The production of liquids and condensates of natural gas is excluded.

### Coverage

#### Reference period

Data are averages of daily output.

## DATA COLLECTION

### Reporting units

All petroleum fields in the country.

### Reporting method

Each month, the central office of PEMEX compiles national level data from returns submitted from the producing fields.

## DATA QUALITY AND TIMELINESS

### Timeliness

Data for a particular month  $m$  are published by INEGI during the month  $m+2$ .

# BUSINESS SURVEYS

- (a) Production: tendency
  - (b) Finished goods stocks: level
- 

## SOURCE

### Source agencies

Data are compiled by the Bank of Mexico.

### Key national publication sources

Data are published in the monthly publication Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

- (a) Producción: tendencia
- (b) Inventarios de productos terminados: nivel

### Breakdown available

Aggregated data are published for the Major division manufacturing as well as for its 9 divisions (see Classification coverage below).

### Run of data available

Data are available from January 1982.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Business surveys collect qualitative information. This is summarised into one figure for each possible answer to one of a series of question. Each of these figures expresses the relative frequency of a particular answer i.e. the proportion of respondents who chose it.

Data published in *Main Economic Indicators* are expressed as a percent balance, calculated as the difference between the weighted proportions of respondents giving favourable and unfavourable answers.

## CONCEPTS AND COVERAGE

### Definition

Returns show entrepreneurs' judgement in developments experienced in their establishment during the past month compared with the previous month.

*Production: tendency.* The question asked to respondents is:

"What was the physical volume of production of your firm during the past month, compared with the previous month: up/same/down" ?

Data are compiled as the percent balance of "up" over "down" responses.

*Finished goods stocks: level.* The question asked to respondents is:

"Taking into account your sales, was the stock of finished goods during the past month, compared with the previous month: excessive/adequate/low" ?

Data are compiled as the percent balance of "excessive" over "low" responses.

### Coverage

#### Reference period

The questionnaire (see Reporting method below) is sent to enterprises at the end of each month requesting data relating to that month compared with the previous month. The completed questionnaire is to be returned by the middle of the following month.

#### Geographical coverage

The whole country.

#### Classification coverage

The classification used is the 1994 Mexican Classification of Activities and Products (*Clasificación Mexicana de Actividades y Productos*, CMAP).

### **Statistical population**

The coverage corresponds to Major division 3 (manufacturing) of the CMAP classification.

Refer to Annex 1 (page 58) for more details on the CMAP.

## **DATA COLLECTION**

### **Reporting units**

Manufacturing establishments with more than 10 employees.

### **Reporting method**

Data are compiled from the results of the Business Survey (*Encuesta de Coyuntura*) of the Bank of Mexico.

The survey has been conducted on a monthly basis since 1973 and the survey sampling frame was completely redesigned in 1993 (see Survey description below). In the new sample, 1 145 establishments were selected; however in 1996 the questionnaire was mailed to only 969 establishments.

Data are collected by survey questionnaire which is generally completed by the General Manager or someone with the same level of responsibility.

### **Survey details**

#### **Description of questionnaire**

Information on production, sales, prices and stocks are collected in the questionnaire for the current period as well as for future periods.

#### **Master list**

The sample frame is based on the 1990 INEGI industrial census.

### **Survey description**

The sample used is probabilistic. Establishments were selected according to the following steps:

#### *Sample stratification*

The CMAP Major division for manufacturing is divided into 9 divisions which, for the purpose of the survey, are sub-divided at a second level into 16 groups of economic activity.

Establishments are first classified into four strata according to the region. They are then further classified into four strata according to their size (i.e. the number of employees) and into 16 strata according to the group of economic activity to which they belong. Within each region, size and economic activity stratum, establishments are selected with probabilities proportional to the number of establishments in the stratum.

#### *Sample size*

The sample size is such that maximal error is +/- 5 % at 95 % confidence level for aggregated results (for example if there are 24% of positive replies to the question on *Production: tendency*, then the confidence interval would be 21.5% - 26.5%).

The total sample size is 1 145 manufacturing establishments, out of a total of 24 191 manufacturing establishments with 10 or more employees. Details on sample size by economic activity are shown in Table 3.

#### **Non-response rate**

The average non-response rate is 38.1%. No correction is made for non-response, as it is assumed that the establishments which did not reply to the questionnaire have on average the same characteristics as those which replied.

Table 3  
**Sample size by economic activity**

Main Groups of Economic Activity	Number of establishments, units									
	<i>In the total population</i>					<i>In the sample</i>				
	<i>Number of employees (units)</i>									
	11-100	101-500	501-1000	>1000	Total	11-100	101-500	501-1000	>1000	Total
Food .....	3214	477	64	44	3 799	65	47	16	44	172
Metal products.....	1949	258	17	10	2 234	35	24	6	10	75
Beverages .....	223	163	32	27	445	9	19	9	27	64
Cars .....	651	190	43	33	917	16	20	10	33	79
Spinning .....	4076	769	46	18	4 911	74	64	11	18	167
Other manufactures ..	9863	1938	203	165	12 330	205	203	79	165	652
<i>Total manufacturing</i>	19 753	3 795	373	270	24 191	395	358	122	270	1 145

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

Aggregated items are calculated at Economic activity, division and national levels by weighting the answers received according to the size (number of employees) of the establishments which replied.

#### Weights for aggregation

Weights are calculated each month for each of the establishments responding to the questionnaire. They

are proportional to the number of employees reported for the month.

## DATA QUALITY AND TIMELINESS

### Timeliness

Data for a particular month  $m$  are published by Bank of Mexico during the month  $m+2$ .

# CONSTRUCTION

# Cost of construction

Social housing

## SOURCE

### Source agencies

Data are compiled by the Bank of Mexico.

### Key national publication sources

Data are available in the monthly publication, Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

Indice del costo de la edificación de la vivienda de interés social: nacional.

### Breakdown available

Aggregated indices are calculated:

- at national level and for each of the 23 cities for total social housing;
- for 42 construction materials, 17 types of labour cost indices, the total cost of construction materials and the total cost of labour at national level and for Mexico City;
- for 9 construction activities (masonry, carpentry, painting, etc.) at national level and for Mexico City.

### Run of data available

Data are available from January 1973.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are published in base 1974=100.

## CONCEPTS AND COVERAGE

### Definition

Data measure the monthly change in the cost of 42 construction materials and 17 labour activities in the social housing sector.

A social housing unit is defined as a dwelling for one or several people with services such as: a bathroom, kitchen, living-room, dining-room, laundry, one or several bedrooms and for which credits for its acquisition at special rates are granted to workers with fixed income.

Prices of construction materials include Value Added Tax (VAT) and discounts. Labour costs include social contributions paid by employers.

### Coverage

#### Geographical coverage

Data were collected in 16 cities from 1973 to 1980. The coverage was extended to 23 cities from 1981.

#### Statistical population

Prices are collected only for social housing.

#### Particular exclusions

Cities with 60 000 inhabitants or fewer according to the 1970 population census are excluded.

## DATA COLLECTION

### Reporting units

Prices are collected from enterprises which sell construction materials, from building companies and other small companies specialising in construction activities.

## Reporting method

All prices are collected directly by data collectors and are recorded on a price quotation register (*registro de cotizaciones*).

Labour cost data are derived both from information from employers and from official minimum wages.

## Survey details

### Description of questionnaire

Prices of material and labour inputs are collected for construction activities such as masonry, iron works, carpentry, sanitary hydraulic fittings, electrical fittings, plaster work, painting and floor work.

### Master list

The sample frame is based on the 1970 Population Census (*Censo de Población*).

### Survey description

Prices were first collected in 16 cities throughout the country when the survey started in 1973.

In 1981, the survey sample was completely redesigned and price collection was expanded to 23 cities.

### Geographical stratification

The country has been divided into 5 regions.

Cities have then been divided into 2 strata, according to the 1970 population census: cities with more than 200 000 inhabitants and cities with 60 000 - 200 000 inhabitants.

### City selection

Mexico City, Monterrey and Guadalajara (the three main cities) were selected automatically. Other cities (20 in total) were selected in each stratum region x size. For administrative reasons, all the sampled cities are included in the sample used for the consumer price index.

### Sample size

2 773 price quotations are made, in 280 enterprises, for the cost of 42 construction materials and the cost of 17 types of building tasks.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

In each city, 59 generic indices (corresponding to the different types of costs) are derived from simple arithmetic monthly averages of price quotations. Elementary indices are then calculated using the fixed-weight Laspeyres formula.

#### Weights for aggregation

The weighting system used to calculate aggregated indices is derived from the estimated cost of construction materials and labour for a "standard" social housing unit in 1974.

## DATA QUALITY AND TIMELINESS

### Sampling errors and their corrections

Data validation procedures have been established. All major changes in price level or in cumulated increases are detected and analysed individually.

### Timeliness and release dates

Data for a particular month  $m$  are published by the Bank of Mexico on the 10th of the month  $m+1$ .

A calendar with release dates is issued by the Bank of Mexico. This information can be accessed via Internet on the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*) server:

<http://www.shcp.gob.mx/>.

# DOMESTIC TRADE

# Wholesale - Retail sales

Total: volume

## SOURCE DESCRIPTION

### Source agencies

Data are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Indicadores del Comercio al Mayoreo y al Menudeo*.

### Series title in national publications

Encuesta mensual sobre establecimientos comerciales: Índice general

Ventas de mercancías, mayoreo (*Wholesale sales*).

Ventas de mercancías, menudeo (*Retail sales*).

### Breakdown available

The following indices are calculated for both retail and wholesale sales:

- a national index for each class of activity;
- an index for each city for each class of activity;
- a national index for sales.

### Methodological references

Information on the methodology used to compile the data can be found in the monthly publication INEGI, *Indicadores del Comercio al Mayoreo y al Menudeo*.

### Run of data available

Data are available from January 1986.

### Periodicity

Data are compiled on a monthly basis.

## Unit of measurement

Data are published in base 1994=100 from January 1994 and were published in base 1986=100 previously.

## CONCEPTS AND COVERAGE

### Definition

Data measure the monthly changes at 1994 prices of retail and wholesale sales of commercial establishments.

Sales include national and foreign merchandise as well as income from services supplied by establishments. Prices include a special tax on production and services, when the establishment is liable to this tax. Sale prices exclude Value Added Tax (VAT), discounts and rebates, as well as insurance related to the transaction (when these are priced separately).

*Wholesale sales* refer to sales of establishments whose main activity is wholesale trade, that is selling merchandise without transformation to manufacturers (for integration into another productive process), to the public sector or other establishments.

*Retail sales* refer to sales of establishments whose main activity is retail trade, that is selling merchandise without transformation to individual consumers.

### Coverage

#### Reference period

Data refer to the sales of the whole reference month.

Table 4  
**Coverage of  
commercial activities**

Commercial activity	Retail trade	Wholesale trade
1. Grocery.....	✓	✓
2. Clothing and footwear.....	✓	✓
3. Records, toys and gifts.....	✓	✓
4. Furniture.....	✓	✓
5. Hardware.....	✓	
6. Industrial inputs.....		✓
7. Vehicles.....	✓	✓
8. Car repairs.....	✓	✓
9. Medicines, pharmaceutical and medical products.....		✓
10. Petrol and derivatives.....		✓
11. Chemical products.....		✓
12. Wood products.....		✓
13. Construction materials.....		✓
14. Electrical material for industry and households.....		✓
15. Pharmacy.....	✓	
16. Stationery and bookstores.....	✓	✓
17. Metallic products for industry.....		✓
18. Agricultural raw materials.....		✓
19. Machinery for industry, trade, agriculture and services.....		✓
20. Waste, recycling and packaging.....		✓
21. Service stations - petrol.....	✓	
22. Service stations - gas.....	✓	
23. Department stores.....	✓	
24. Supermarkets.....	✓	

### Geographical coverage

Data were collected for three cities from 1986 to 1993 (Mexico City, Guadalajara and Monterrey). The coverage was extended to 15 cities in 1993 and to 33 cities from 1994.

### Classification coverage

Establishments are classified according to their major activity.

They are first classified into two sub-groups: wholesale or retail trade and at the next level into classes of activity (commercial activity), at the 4-digit level, according to the 1994 Mexican Classification of Activity and Products (*Clasificación Mexicana de Actividades y Productos*, CMAP). Retail trade comprises 13 commercial activities and wholesale trade

covers 18. Refer to Annex 1 (page 58) for more details on the CMAP.

Table 4 gives details of the coverage of commercial activities.

### Statistical population

Data are collected from commercial establishments in the 33 cities of the country.

### DATA COLLECTION

#### Reporting units

Data are collected from commercial establishments which are selected on the basis of turnover.

## Reporting method

Data are derived from the Monthly Survey on Commercial Establishments (*Encuesta Mensual sobre Establecimientos Comerciales*, EMEC) conducted by INEGI.

Data collectors visit each enterprise or establishment and complete the questionnaire with an officer of the organisation. Data collection starts on the 15th of each month (or on the closest working day) for data referring to the previous month.

## Survey details

### Description of questionnaire

Questions request information on sales, employment, salaries, merchandise cost and purchases. The question relating to sales is:

"What was the net value of your sales of merchandise, without transformation, during the period covered by the survey?"

### Master list

The sample frame is based on the 1994 INEGI commercial sector census.

### Survey description

Trade data have been collected since 1983. However, first in 1988 and then in 1993, the EMEC was completely redesigned and new sampling methods were introduced.

Data between 1986 and 1993 refer to establishments with a turnover of over 1 billion Pesos in 1987 in Mexico City and 500 million Pesos in Guadalajara and Monterrey.

From 1993, a new purposive sample was introduced; cities and establishments have been selected according to the following steps:

#### *Selection of cities*

Initially, cities are selected according to the decreasing values of their commercial revenues, derived from the 1994 commercial census. Sales data are observed in a total of 33 cities.

#### *Selection of establishments*

Establishments are then selected in each of the 33 cities, again by decreasing value of their sales. In each city, the retail and wholesale trade samples account for at least 53 % of the total sales according to the 1994 Commercial Census. Establishments which

cease commercial activity are immediately replaced in the sample.

#### *Sample size*

Data are collected each month from 10 160 commercial enterprises, which supply information on nearly 19 486 establishments. The percentage of total sales covered by the sub-groups at national level is given in Table 5:

Table 5  
Coverage of total sales  
at national level

Sub-groups	Coverage
Wholesale sales.....	45 %
Retail sales .....	59 %
Total sales .....	53 %

### Non-response rate

Non-response represents about 4% of the total sample. Non-responses are replaced in the sample by the average sales figure of the class of activity to which the establishment belongs.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

All value data are deflated by a price index in base 1994=100 (producer or consumer price index, as appropriate) for each class of activity and for each city. Each of these elementary values, expressed at 1994 prices, are then divided by the corresponding average value in 1994 to obtain an elementary volume index in base 1994=100.

Elementary indices are then calculated using the fixed-weight Laspeyres formula.

#### Weights for aggregation

The weights used to calculate aggregated indices are derived from the 1994 Commercial Census values of wholesale and retail trade in each class of activity and city.

### **Seasonal and other adjustments**

Seasonal adjustments are carried out by the OECD using the X-11 variant of US Census Method II, and take into account adjustments for Easter.

The seasonally adjusted series are corrected for trading days.

## **DATA QUALITY AND TIMELINESS**

### **Preliminary estimates**

Preliminary figures are indicated with a "P" in the publication *Indicadores del Comercio al Mayoreo y al Menudeo*.

### **Revisions policy**

Every six months sales data are revised to incorporate late monthly information.

### **Timeliness and release dates**

Data for a particular month  $m$  are published by INEGI between the 18th and the 20th day of the month  $m+2$ .

A calendar of release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:

<http://www.inegi.gob.mx/>.

# LABOUR

- (a) Employment in manufacturing
  - (b) Monthly hours of work
- 

## SOURCE

### Source agencies

Data are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Indicadores del Sector Manufacturero*.

### Series title in national publications

- (a) Índice del personal ocupado en la industria manufacturera.
- (b) Índice de horas-hombre trabajadas en la industria manufacturera.

### Breakdown available

Aggregated indices are published for total employees, for manual and for non-manual workers.

Data for total employees are also published for each of the 9 CMAP divisions of the manufacturing sector (see Classification coverage below).

### Methodological references

Information on the methodology used to compile the data can be found in the monthly publication INEGI, *Indicadores del Sector Manufacturero*.

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are published in base 1993=100 from January 1996 and were previously published in base 1980=100.

## CONCEPTS AND COVERAGE

### Definition

*Employment in manufacturing* refers to employees in manufacturing industries. Data cover all manual and non-manual workers who have worked in an establishment during the reference month and have received remuneration on a fixed or periodic basis.

Data include all employees on strike, vacation or on sick leave. They exclude people laid off for an unspecified period, pensioners, people working without remuneration and people working on a freelance basis (paid by agreement, on fees or commission).

*Monthly hours of work* refers to actual hours worked by all manual and non-manual workers (including temporary staff) in the manufacturing sector.

Included are all regular and supplementary hours, time spent on maintenance of machinery, cleaning tools and preparation of the work. Excluded are interruptions for strikes, lockouts, technical stoppages, holidays, sick leave and work interruption due to natural phenomena or other reasons.

### Coverage

#### Reference period

Figures for *Employment in manufacturing* are averages of the number of employees on the payroll during each week of the reference month.

Figures for *Monthly hours of work* correspond to the total hours worked during the month.

#### Classification coverage

From 1994, data cover 205 classes of activity of the 1994 Mexican Classification of Activity and Products (*Clasificación Mexicana de Actividades y Productos*, CMAP). Prior to that date, data covered 129 CMAP

classes of activity (from 1987 to 1993) and 57 CMAP classes of activity (from 1980 to 1986).

Refer to Annex 1 (page 58) for more details on the CMAP.

## **DATA COLLECTION**

### **Reporting method**

Data are compiled from the results of the Monthly Industrial Survey (*Encuesta Industrial Mensual*, EIM). Refer to Annex 1 (page 58) for a complete description of this survey.

## **DATA MANIPULATION**

### **Aggregations / Grossing up**

#### **Aggregation method**

Indices in base 1993=100 are calculated as the ratio of *Employment in manufacturing* and *Monthly hours of*

*work* for the month under review to the corresponding average in 1993.

## **DATA QUALITY AND TIMELINESS**

### **Preliminary estimates**

Preliminary figures are indicated with a "P" in the publication *Indicadores del Sector Manufacturero*.

### **Timeliness and release dates**

Data for a particular month  $m$  are published by INEGI between the 27th and the 29th day of the month  $m+2$ .

A calendar with release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:  
<http://www.inegi.gob.mx/>.

# LABOUR

# Employment

Insured persons

## SOURCE

### Source agencies

Data are compiled by the Mexican Social Security Institute (*Instituto Mexicano del Seguro Social*, IMSS).

### Key national publication sources

Data are available in the monthly publication INEGI, *Cuaderno de Información Oportuna*.

### Series title in national publications

Asegurados en el Instituto Mexicano de Seguridad Social (IMSS): total

### Breakdown available

Aggregated data are calculated at regional and national levels for each class of economic activity and by kind of social insurance.

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data refer to the number of insured persons.

## CONCEPTS AND COVERAGE

### Definition

Data refer to persons registered with the IMSS, whether on a compulsory or voluntary basis.

Persons are obliged to register with the IMSS if they are:

- bound by a working contract (including persons on permanent and on temporary contracts);
- employers of insured workers;

- members of production co-operatives;
- agricultural workers on public land (*ejidatarios*);
- independent workers and people employed in a family business;
- farm owners;
- students;
- professional members of the armed forces.

People can register with the IMSS on a voluntary basis for care and maternity services.

### Coverage

#### Reference period

Data refer to persons who have been registered with the IMSS during the reference month.

## DATA COLLECTION

### Reporting units

IMSS registers include information from more than 655 000 enterprises of all sizes in all economic sectors and in the whole country.

### Reporting method

Data are collected directly by the 36 regional IMSS offices in the whole country. This information is then transmitted to the national IMSS delegation in order to be compiled at the national level.

Data are derived from the administrative records of affiliation to the IMSS for people on permanent contracts (of unspecified duration) and people insured on an voluntary basis.

Data on the number of seasonal workers in the agricultural sector are derived from information on total production and productivity (due to the high mobility of these workers); while data on the number of other temporary workers are based on information derived from payrolls sent by the employers to the IMSS.

## **Administrative source details**

### **Description**

The IMSS affiliation records contain information on the five following topics:

- registration of a new business or new status of the employer;
- new registration of an employee;
- change of salary of the insured worker;
- persons no longer insured;
- registration for facultative insurance.

### **Update procedures**

Employers are obliged to notify IMSS, within 5 days, of all changes to affiliation records (see above).

### **Quality assessment**

It is compulsory for employers to communicate all information to the IMSS.

## **DATA QUALITY AND TIMELINESS**

### **Timeliness**

Data for a particular month  $m$  are published by INEGI during the month  $m+1$ .

# LABOUR

# Unemployment

Rate

## SOURCE

### Source agencies

Data are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Indicadores de Empleo y Desempleo*.

### Series title in national publications

Tasa de desempleo abierto (R1).

### Breakdown available

Unemployment rates are published at national and city levels by:

- sex and five categories of ages (12-19 years, 20-24 years, 25-34 years, 35-44 years, 45 years and older);
- five education levels (none, partial primary school, primary school, secondary level, tertiary level);
- economic activity.

### Methodological references

The complete methodology used to compile the data can be found in INEGI (December 1995), *Encuesta Nacional de Empleo Urbano, Documento Metodológico*.

Methodological information can also be found in the monthly publication INEGI, *Indicadores de Empleo y Desempleo*.

### Run of data available

Data are available from January 1985.

### Periodicity

Data are compiled on a monthly basis.

## Unit of measurement

Data are expressed as a percentage of the total labour force.

## CONCEPTS AND COVERAGE

### Definition

The open unemployment rate (R1) is calculated by dividing the open unemployment figures by the total labour force (*Población Economicamente Activa*, PEA).

PEA figures are defined as the number of employed persons plus the number of persons in “open” unemployment.

Employed persons are those who, during the reference week:

- were aged 12 or more;
- had worked for at least one hour for payment in kind or in money, or were self-employed;
- were temporarily absent due to illness, holidays, leave, or for personal reasons, but were sure to return to their work or business;
- did not work but were due to start work within the next four weeks.

Persons are considered to be unemployed (in “open” unemployment), if during the reference week, they:

- have not worked for more than one hour;
- were available for work;
- have actively sought employment during the last four weeks or have not searched for employment in the last two months because of reasons related to natural conditions (e.g. poor harvest) or because of work stoppage.

The PEA includes professional members of the armed forces but excludes conscripts.

## Coverage

### Reference period

Interviews are held throughout the whole quarter (see Reporting method below). Information on employment refers to the week prior to the interview.

### Geographical coverage

City coverage has been gradually extended. Table 6 gives details on city coverage.

Table 6  
City coverage

1973 .....	3 cities
1985 .....	16 cities
1992 .....	34 cities
1993 .....	37 cities
1994 .....	39 cities
1996 .....	41 cities

The present coverage has been 41 cities since January 1996. This corresponds to 24 state capitals, 4 cities bordering the United States (zones containing many In-bond exports industries - see the chapter on Industrial production) and 13 cities chosen for their economic importance.

According to the 1990 population census, the geographic coverage represents 92% of the total urban population in towns of 100 000 inhabitants or more and 65% of the population living in towns of 2 500 inhabitants or more.

### Statistical population

Data are collected from households in urban areas in the whole country, except those living in collective dwellings such as hotels, hospitals, prisons, barracks. Information is collected for professional members of the armed forces only when their private dwellings are included in the survey sample.

### Particular exclusions

Rural zones are excluded. Characteristics of the non-urban Labour Force are obtained from specific biannual surveys conducted in rural areas.

## STANDARDS

### International comparability

The open unemployment rate (R1) is calculated according to ILO standards. Under this definition, the unemployed are persons of working age who, in a specific period, are without work and are both available for and actively seeking work. The unemployment rate is defined as the number of persons unemployed as a proportion of the total labour force, including the armed forces.

#### • Informal sector

In the case of Mexico, the use of ILO standards may be deceptive for several reasons.

As there is no unemployment insurance in Mexico, many people are engaged in marginal activities (street vending, carrying out repair jobs, etc.). Thus the size of the informal sector is substantial. Recent INEGI surveys on the informal sector have introduced the concept of "marginal employment" (*Encuesta Nacional de Micronegocios*). They show that, according to the ILO concept, 35 % of the Mexican working age population is occupied in "marginal" activities. These people are not counted as unemployed in the sense of the ILO terminology.

INEGI's ten complementary rates of unemployment (R2 to R11, see table 7 below) represent an attempt to measure the underemployment that is not encompassed in the concept of the *Open unemployment rate* (R1). These ten rates are based on a combination of information on job searches, hours worked and income from employment.

## DATA COLLECTION

### Reporting units

Households in 41 cities throughout the whole country.

### Reporting method

Data are derived from the National Survey on Urban Employment (*Encuesta Nacional de Empleo Urbano*, ENEU) conducted by INEGI.

Collection of unemployment data started in 1973 with the Continuous Survey on Employment (*Encuesta Continua Sobre Ocupación*, ECSO). Data were collected only for Mexico City, Guadalajara and Monterrey (the three main cities). In 1985, the ECSO survey was replaced by the ENEU survey.

Data are collected by questionnaire directly from households. The complete survey is conducted on a quarterly basis and a sub-sample of households (about one-third) is visited monthly. Data collectors visit each household and complete the questionnaire with the members of the household.

The sample of households is divided into several independent sub-samples with equal characteristics. It is rotated by one-fifth every quarter. Each sub-sample is included only five times in the survey, then it is dropped and replaced by a new one.

Table 7  
Unemployment rates - Definitions

<b>R1: Open unemployment rate</b>	Persons aged 12 years or more who did not work one hour or more during the reference week, who were available for work and who were actively seeking work, as percent of total labour force.
<b>R2: Alternative unemployment rate</b>	Persons who are "open" unemployed <i>plus</i> persons waiting to begin work in the next four weeks <i>plus</i> persons who have stopped looking for a job - they were looking in the past - but are still available to work (hidden unemployment).  The R2 rate is expressed as percent of total labour force <i>plus</i> hidden unemployment.
<b>R3: Real economic pressure rate</b>	R1 <i>plus</i> persons seeking a second job, as percent of total labour force.
<b>R4: Real preference pressure rate</b>	R1 <i>plus</i> persons seeking a new job, as percent of total labour force.
<b>R5: General pressure rate</b>	R1 <i>plus</i> persons seeking a new or a second job, as percent of total labour force.
<b>R6: Part-time (less than 15 hours) plus unemployment rate</b>	R1 <i>plus</i> persons working less than 15 hours per week, as percent of total labour force.
<b>R7: Part-time for economic reasons plus unemployment rate</b>	R1 <i>plus</i> persons working less than 35 hours per week for economic reasons, as percent of total labour force.
<b>R8: Part-time (less than 35 hours) plus unemployment rate</b>	R1 <i>plus</i> persons working less than 35 hours per week (as percent of total labour force).
<b>R9: Insufficient income plus unemployment rate</b>	R1 <i>plus</i> persons who work and earn less than the minimum wage, as percent of total labour force.
<b>R10: Critical conditions of the employed rate</b>	Persons who work less than 35 hours per week for economic reasons <i>plus</i> persons who work more than 48 hours per week and earn between one and two times the minimum wage <i>plus</i> persons who work more than 35 hours per week and earn less than the minimum wage, as percent of total employment.
<b>R11: General rate of employment needs</b>	Composite of the R1, R2, R3, R4 and R6 rates.

## Survey details

### Description of questionnaire

The questionnaire in basically its current form has existed since 1985. It covers topics related to both social characteristics and employment conditions of the household (e.g. location of work, size of employer's establishment, hours of work, income or benefits received).

Information on employment is collected from the members of the household aged 12 or more. Social characteristics (age, sex, relationship with the head of the household, school history, date of birth, etc.) are collected for all members of the household.

### Master list

The sample frame is based on the 1990 INEGI population census.

### Survey description

The sample is stratified and probabilistic. The sample was built according to the following steps:

#### Sample frame

Cities are divided into basic statistical units called *Áreas Geoestadísticas Básicas* (AGEB) defined by INEGI for the main purpose of the population census. An AGEB is homogeneous according to socio-economic criteria (described below) and includes on average 14-15 blocks of houses depending on the size of the city or the topography of the area.

At present, employment data are collected in 41 cities throughout the country, chosen for their economic importance or their location (bordering the United States).

#### Sample stratification

AGEBs are first classified into 4 strata defined according to the socio-economic characteristics of the dwellings in the AGEB:

- High: residential dwellings with access to full public and private services and basic public transport.
- Medium: dwellings within easy reach of public transport, general public services and a large number of stores.
- Low: unfinished dwellings built with low quality materials and within easy reach of public transport.
- Marginal: same type of dwellings as for "low" but without access to public services or transport.

#### Sample units

Within each city-strata a sample of households is drawn as follows:

- (i) AGEBs are first merged, if necessary, so as to create sets containing between 240 and 480 dwellings. The sets obtained are the Primary Sample Units (*Unidades Primarias de Muestreo*, UPM);
- (ii) UPMs are selected with probabilities proportional to the number of dwellings in them. Dwellings are organised in blocks. Once the UPMs have been selected, the number of dwellings that each block of each selected UPM contains is re-counted and updated to account for new dwellings, etc. since the last census;
- (iii) in each selected UPM, blocks of dwellings are merged if necessary so as to create subsets of dwellings containing between 20 and 50 Primary Sample Units. The corresponding subsets are the Secondary Sample Units (*Unidades Secundarias de Muestreo*, USM);
- (iv) in each UPM, six USMs are selected with probabilities proportional to the number of dwellings. Once the USMs have been selected, an exhaustive identification (full address and other useful location characteristics) of the dwellings in the USM is prepared, so as to make the survey possible;
- (v) finally an average of five dwellings is selected at random in each USM.

#### Sample updating

New UPMs are introduced each quarter (rotating sample), and the sampling frame (dwelling stratum, new areas, changes in block size, etc.) is updated continually to take into account changes in city structure.

#### Sample size

The sample size varies from 5 100 households visited quarterly in Mexico City to 2 100 households in the smallest of the 41 cities. The sample size for each city is such that maximal error on the final unemployment rate in the city is +/- 5% at the 80% confidence level (for example a confidence interval would be 6.95 % - 7.05 % for a city unemployment rate of 7%).

The total size of the sample at national level is about 94 000 households. On a monthly basis, the survey is conducted with about 30 000 households in the whole country.

### **Non-response rate**

It represents around 15 % of the total sample size.

## **DATA MANIPULATION**

### **Aggregations / Grossing up**

#### **Grossing up method**

In each city and for each of the variables surveyed, results are grossed-up to the total population aged 12 years and over. These grossing-up factors are inversely proportional to the selection probabilities of dwellings; they are derived from the results of the 1990 population census.

Grossing-up factors are corrected by the percentage of non-responses at USM level.

#### **Seasonal and other adjustments**

Seasonal adjustments are carried out by INEGI using X11-ARIMA/88. Seasonally adjusted series take into account Easter adjustments: the unemployment rates tend to be higher during the Easter week period (*semana santa*) because of public holidays.

The seasonally adjusted series are corrected for trading days.

## **DATA QUALITY AND TIMELINESS**

### **Sampling error and their corrections**

Stages of quality control have been developed in the field and in offices: 10% of the households are re-interviewed and data consistency is checked through computer analysis.

### **Preliminary estimates**

Monthly estimates are calculated from a sub-sample covering 33% of the total quarterly sample.

Preliminary figures are indicated with a "P" in the publication *Indicadores de Empleo y Desempleo*.

### **Timeliness and release dates**

Data for a particular month  $m$  are published by INEGI between the 15th and the 18th day of the month  $m+1$ .

A calendar of release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:

<http://www.inegi.gob.mx/>.

# WAGES

Real monthly earnings

## SOURCE

### Source agencies

Data are compiled by INEGI.

### Key national publication sources

Data are available in the monthly publication INEGI, *Indicadores del Sector Manufacturero*.

### Series title in national publications

Indices de las remuneraciones medias reales totales por persona ocupada : total

### Breakdown available

Aggregated indices are published for total employees, for manual and for non-manual workers.

Data for total employees are also published for each of the 9 CMAP divisions of the manufacturing sector (see Classification coverage below).

### Methodological references

Information on the methodology used to compile the data can be found in the monthly publication, INEGI, *Indicadores del Sector Manufacturero*.

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are published in base 1993=100 from January 1996 and were previously published in base 1980=100.

## CONCEPTS AND COVERAGE

### Definition

Data refer to wages, salaries and social benefits paid to all wage and salary earners (with indefinite or fixed-term contracts).

Wages and salaries refer to total gross payments to manual and non-manual workers for regular and supplementary hours worked during the reference month. Included are incentive and holiday pay, end of year and other bonuses, commissions paid to employees receiving regular wages and participation in enterprise profits. Excluded are pensions and fees or commissions received by people working on a freelance basis.

Social benefits include medical services, food, life insurance, employers' contribution to the Mexican Social Security Institute (*Instituto Mexicano del Seguro Social*, IMSS) and the National fund for workers' housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, INFONOVIT), compensation for layoff, contributions to retirement schemes, and all contributions which should be paid by the workers' but which are covered by the establishment.

Social benefits do not include the value of uniforms, work clothes, and reimbursable expenses (for travel or representation costs).

### Coverage

#### Reference period

Figures correspond to total wages, salaries and social benefits paid in the month.

#### Classification coverage

From 1994, data cover 205 classes of activity of the 1994 Mexican Classification of Activity and Products (*Clasificación Mexicana de Actividades y Productos*, CMAP). Prior to that date, data covered 129 CMAP classes of activity (from 1987 to 1993) and 57 CMAP classes of activity (from 1980 to 1986).

Refer to Annex 1 (page 58) for more details on the CMAP.

## **DATA COLLECTION**

### **Reporting method**

Data are compiled from the results of the Monthly Industrial Survey (*Encuesta Industrial Mensual*, EIM). Refer to Annex 1 (page 58) for a complete description of this survey.

## **DATA MANIPULATION**

### **Aggregations / Grossing up**

#### **Aggregation method**

Wages are first deflated by the consumer price index (in base 1994=100) to obtain real wages.

Indices in base 1993=100 are then calculated as the ratio of real wages for the current reported month to the corresponding average real wage in 1993.

## **DATA QUALITY AND TIMELINESS**

### **Preliminary estimates**

Preliminary figures are indicated with a "P" in the publication *Indicadores del Sector Manufacturero*.

### **Timeliness and release dates**

Data for a particular month  $m$  are published by INEGI between the 27th and the 29th day of the month  $m+2$ .

A calendar of release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:  
<http://www.inegi.gob.mx/>.

# PRICES

# Producer prices

- (a) Total
- (b) Agricultural products

## SOURCE

### Source agencies

Data are compiled by the Bank of Mexico.

### Key national publication sources

Data are available in the monthly publication Bank of Mexico, *Indice de precios*

### Series title in national publications

Indice nacional de Precios Productor:

- (a) Indice general.
- (b) Agricultura, ganadería, silvicultura y pesca.

### Breakdown available

Aggregated indices are published (see Classification coverage below):

- at total level (primary and secondary sectors of the CMAE);
- for each sector of economic activity, Major division, division, branch and for each of the 555 generic products corresponding to a CMAE class of activity;
- for the aggregate components of Demand (Total, Private consumption, Gross fixed capital formation and Exports).

For *Producer prices: agricultural products* aggregated indices are published for the following CMAE branches: agriculture, livestock, forestry and fishing; as well as for each of the corresponding goods and classes of activity.

### Run of data available

Data are available from January 1981.

### Periodicity

Data are compiled on a monthly basis.

## Unit of measurement

Data are expressed in base 1994=100.

## CONCEPTS AND COVERAGE

### Definition

Data cover both domestic and export markets.

*Total index:* data measure the monthly price changes in the output of the agriculture, livestock, forestry, fishing, mining, manufacturing and construction activities.

*Agricultural products:* data measure the monthly price changes in the output from agriculture, livestock, forestry and fishing.

### Coverage

#### Geographical coverage

The whole country.

#### Classification coverage

The classification used is the 1980 Mexican Catalogue of Economic Activities (*Catálogo Mexicano de Actividades Económicas*, CMAE).

CMAE is organised into: sectors of economic activity, Major divisions, divisions (only for manufacturing), branches of economic activities and classes of activity. Each class of activity corresponds to one or several products as defined in the 1993 National Income and Product Accounts (see Survey details below).

#### Statistical population

*Total index:* the coverage corresponds to the primary and secondary sectors of economic activity of the CMAE classification.

*Agricultural products:* the coverage corresponds to Major division 1 (Agriculture, forestry and fishing) of the primary sector of the CMAE.

## DATA COLLECTION

### Reporting units

Data are collected from enterprises and producers' associations, or from first dealers in the case of agricultural products (where the selling price of a product can be obtained when it is first sold on the market).

### Reporting method

Data are derived from the monthly survey on producer prices conducted by the Bank of Mexico.

Prices are collected directly by price collectors for a constant basket of 555 goods (including 75 agricultural products). Prices are recorded on a price quotation register (*registro de cotizaciones*) by price collectors and are sent to the Bank of Mexico for the compilation of the price indices.

Prices of perishable goods are quoted weekly, other prices are quoted monthly. All prices are average prices for the month.

### Survey details

#### Master list

The sample frame is based on the 1993-1994 Enterprise Census (*Marco directorio de las empresas*) carried out by the Bank of Mexico.

#### Survey description

##### *Universe of products*

The universe of products was defined using production value data from the 1993 National Income and Product Accounts compiled by the Bank of Mexico.

##### *Selection of the products*

A sample of 555 generic products was selected with probabilities proportional to the value of production from the universe defined according to the CMAE.

##### *Selection of the enterprises*

The sample used for enterprises is also probabilistic: enterprises were selected, in each class of activity where products are chosen, with probabilities proportional to the sales of those products.

##### *Selection of the specific items*

For each generic product selected, a sample of different packaging was selected from those available in the sampled enterprises. The selection of packaging was based on sales figures for these different product presentations. In all, 12 000 specific items were selected.

##### *Sample size*

Total index: prices for 12 000 items are collected monthly throughout the country for 555 generic goods.

*Agricultural products:* 2 270 prices (out of 12 000) are collected monthly from 400 sources for 75 generic goods (see Reporting units above).

#### Non-response rate

Enterprises for which data were not available during previous visits are systematically re-visited.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

Indices are calculated using the fixed-weight Laspeyres formula.

For each generic product, simple arithmetic price averages are calculated each month and divided by the corresponding price average in 1994 to obtain an elementary price index.

Elementary indices are aggregated at higher levels (classes of activity, branch, division, Major division and Sector of economic activity) using 1993 National Income and Product Accounts demand data. Final demand for each generic product is given in the input-output table, which allows aggregation of the product indices at the level of class of activity. Demand data for each class of activity allows aggregation at higher levels.

#### Weights for aggregation

Weights are calculated from the input-output table of the 1993 National Income and Products Accounts. They are derived from production and intermediate consumption for each class of activity. Table 8 shows a summary weighting pattern.

Table 8  
**Producer price index  
 weighting pattern**

*Per cent*

<b>CMAE Sectors of economic activity</b>	<b>1993 Weights</b>
Primary sector .....	13.1
<i>of which</i>	
Mining .....	4.2
Agriculture, livestock forestry and fishing .....	8.9
Secondary sector.....	86.9
<i>of which</i>	
Manufacturing.....	64.1
Construction.....	22.8
<b>Total</b>	<b>100.0</b>

## **DATA QUALITY AND TIMELINESS**

### **Revisions**

Data are revised when the company *Petroléos Mexicanos* provides revised data on oil prices.

### **Timeliness and release dates**

Data for a particular month  $m$  are published by the Bank of Mexico on the 10th of the month  $m+1$ .

A calendar with release dates is issued by the Bank of Mexico. This information can be accessed via Internet on the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*) server:  
<http://www.shcp.gob.mx/>.

# PRICES

## Consumer prices

- (c) All items
- (d) All items less food
- (e) Food
- (f) Beverages and tobacco
- (g) Fuel and electricity
- (h) Rent
- (i) Mexico City: all items

### SOURCE

#### Source agencies

Data are compiled by the Bank of Mexico.

#### Key national publication sources

Data are available in the monthly publication, Bank of Mexico, *Indice de Precios*.

#### Source title in national publications

Indice nacional de precios al consumidor

- (c) Indice general
- (e) Alimentos
- (f) Bebidas y tabaco
- (g) Electricidad y combustibles
- (h) Vivienda alquilada
- (i) Indice Ciudad de Mexico

Data for *Consumer prices: all items less food* are calculated by the OECD and therefore are not published in national publications.

#### Breakdown available

An index is published for each item in the basket of goods and services (see Reporting method below) at city, regional and national level.

These indices are then aggregated to the total index (all items) at city, regional and national level by:

- expenditure (e.g. expenditure on food, clothing and footwear, etc.);
- sector of economic activity (primary, secondary and tertiary);
- four income brackets (only at national and regional levels).

### Run of data available

Data are available from January 1960.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Consumer price indices are published in base 1994=100.

## CONCEPTS AND COVERAGE

### Definition

Data measure the price changes over time of a constant basket of goods and services taken as representing the consumption habits of households. All prices include taxes.

The item *food* excludes beverages and tobacco as well as restaurant meals; the item *rent* excludes repairs and maintenance.

### Coverage

#### Geographical coverage

Data are collected in 46 cities throughout the country.

#### Statistical population

All households.

#### Particular exclusions

Cities with 20 000 inhabitants or less are excluded.

## DATA COLLECTION

### Reporting method

Data are derived from the fortnightly survey on consumer prices carried out by the Bank of Mexico. Food prices are, however, collected weekly.

Prices are collected for a constant basket of 313 goods and services. The goods or services must be for consumption (and not for re-sale), refer to commonly used items and their prices should be readily observed.

All prices are collected directly in retail outlets by inquirers, except for prices for rent, gas, electricity, petroleum and telephone services which are collected directly from households.

Collected prices are sent daily to the Bank of Mexico by modem and processed by computer.

### Reporting units

Data are collected from retail outlets. Prices for rent are collected directly from households.

Prices for food products are collected each week, prices for other products are collected fortnightly. Monthly prices refer to the average price in the month.

### Survey details

#### Master list

The sample frame is based on the 1990 INEGI Population census (*Censo de Población*)

#### Survey description

Prices are collected according to a four-stage method:

- selection of the content of a basic basket of goods and services;
- selection of the cities where prices are collected;
- selection of retail outlets and households in each city where prices are collected;
- selection of the brands and packaging of the products for which prices are collected in the retail outlets selected in previous step.

#### *Selection of a basket of goods and services*

A basket of 313 goods and services representative of the consumption habits of Mexican families has been chosen based on the results of the 1989 National Income and Expenditure Household Survey conducted

by INEGI (*Encuesta Nacional de los Ingresos y Gastos de los Hogares*, ENIGH).

#### *Selection of cities*

The country is divided into seven regions. Within each region, stratification is by city size: small, medium and large. In all, 46 cities are included in the sample.

#### *Selection of retail outlets and households*

In each selected city, retail outlets were sampled with probabilities proportional to their size and their retail turnover.

For rent and domestic services, prices are collected monthly from 5 000 households in the 46 cities. These households have been sampled to be representative of all socio-economic status profiles.

#### *Selection of specific items*

Different brands and packaging of the generic products were selected with probabilities proportional to their sales, based on the results of the National Survey on Brands and Packaging (*Encuesta Nacional de las Marcas y Presentaciones*, ENMP).

The ENMP survey is conducted by the Bank of Mexico on a regular basis in each of the sampled cities and for the generic products of the basic basket of goods and services.

#### *Sample size*

Each month, 170 000 prices are collected for 313 generic products in the 46 cities. Among the prices collected, approximately 10 % are food, beverages and tobacco prices, 40 % are other goods prices and 50 % are service prices.

These prices are collected from 14 000 retail outlets and 5 000 households.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

Indices are calculated using the fixed-weight Laspeyres formula.

Prices for each generic product are calculated in each city as a simple arithmetic price average of its representative items and divided by the corresponding average price in 1994 to obtain an elementary index. Elementary indices are aggregated at several levels using weights proportional to consumption expenditures in 1989.

In total, 66 000 indices at generic product, city and region levels enter into the calculation of the total index.

- elementary indices are first aggregated for each of the seven regions and city strata (small, medium and large) (e.g. rice in Baja California for large cities);
- indices are then aggregated at regional and national levels (e.g. rice in Baja California and rice);
- these indices are then aggregated to the total index (all items) at national level.

#### Weights for aggregation

Weights used to calculate aggregated indices are derived from national expenditure of Mexican families obtained from the 1989 INEGI Household Survey (ENIGH), together with data from the INEGI population census.

The weights by main groups are summarised in Table 9:

Table 9  
Consumer prices  
weighting pattern

<i>Per cent</i>	
Main groups	1989 Weights
Food, beverages and tobacco.....	29.41
Clothing and footwear .....	6.75
Housing .....	22.22
<i>of which</i>	
Rent.....	<i>n.a</i>
Furniture household appliances and other goods .....	5.69
Medical care and health expenses....	6.78
Transport .....	15.19
Education and recreation .....	7.66
Other services .....	6.30
Total .....	100.00
<i>of which</i>	
Total goods .....	55.02
Total services .....	44.98

## Other manipulations

### Quality changes

When the quality of a product from the basic basket of goods and services changes significantly, an adjustment is made to take this change into account.

## DATA QUALITY AND TIMELINESS

### Sampling errors and their corrections

Each month, 3 cities and 20 products are chosen at random. Supervisors compare prices in these cities with those collected by the inquirers.

A computer application is used to check price changes. For each product, monthly price changes in each city are compared to the price change in the corresponding region. If there is a discrepancy, the city prices are immediately checked by a supervisor and corrected where necessary.

### Timeliness and release dates

Data for a particular month  $m$  are published by the Bank of Mexico on the 10th of the month  $m+1$ .

A calendar with release dates is issued by the Bank of Mexico. This information can be accessed with Internet on the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*) server:  
<http://www.shcp.gob.mx/>.

# DOMESTIC FINANCE

(a) Money supply (M1)

(b) Money supply (M4)

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## SOURCE

### Source agencies

Data are compiled by the Bank of Mexico.

### Key national publication sources

Data are available in the monthly publication, Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

- (a) Agregado monetario, M1.
- (b) Agregado monetario, M4.

### Run of data available

Data are available from January 1977.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are expressed in Mexican Pesos.

## CONCEPTS AND COVERAGE

### Definition

*Money supply (M1)* comprises notes, coins, and cheque accounts (both interest and non-interest bearing) held by the non-banking sector, denominated in Pesos or in foreign currency.

*Money supply (M4)* comprises M1, plus the banking instruments of a maturity of one year or less and bankers' acceptances, plus the non-banking liquid instruments offered to the public (Treasury bills and other public debt instruments, commercial paper, etc.), plus long-term financial instruments. Prior to July 1992, the FICORCA (Fund for Hedging Exchange Rate Risks) was also part of this aggregate and since May 1992, resources of the Retirement Saving System (SAR) have been included.

## DATA MANIPULATION

### Seasonal and other adjustments

Seasonal adjustments are carried out by the OECD using the X-11 variant of US Census Method II.

No adjustment for trading days is made.

## DATA QUALITY AND TIMELINESS

### Timeliness and release dates

Data for a particular month  $m$  are published by the Bank of Mexico on the 9th of the month  $m+1$ .

A calendar with release dates is issued by the Bank of Mexico. This information can be accessed via Internet on the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*) server:  
<http://www.shcp.gob.mx/>.

# INTEREST RATES

3-month CETES

## SOURCE

### Source agencies

Data are compiled by the Bank of Mexico.

### Key national publication sources

Data are available in the monthly publication Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

CETES, 3 meses.

### Run of data available

Data are available from January 1981.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are expressed in percent per annum.

## CONCEPTS AND COVERAGE

### Definition

The 3-month CETES treasury bills (*Certificates de Tesorería*, CETES) are zero coupon bonds issued by the federal government on a discount basis. The rate represents the yield at maturity (3 months) on the primary market.

CETES are issued at the Mexico Stock Exchange in two ways:

- Dutch auction: both the Bank of Mexico and the buyers propose rates at which they are willing to sell (or buy) bills. The Bank of Mexico then issues the bills at the lowest bid; bills are assigned only to buyers who made a proposal less than the Bank's proposal.
- Multiple rate auction: the Bank of Mexico fixes a quantity of bills to be assigned and bidders propose rates at which they are willing to buy bills. The Bank of Mexico assigns the bills according to the bids, starting with the lowest rate.

CETES returns are tax exempt for physical persons: moral persons must record them as liable for taxation.

### Coverage

#### Reference period

Data refer to closing rates (at 6.30 p.m.) of the day on which the auction takes place. The monthly rate published in *Main Economic Indicators* is the average of weekly auction rates.

## DATA COLLECTION

### Reporting method

Data are compiled from weekly auctions of the treasury bills which are collected directly at the Mexico Stock Exchange.

Data are collected using the Bank of Mexico's information system which connects the Central Bank with the financial intermediaries and the Mexico Stock Exchange.

# SHARE PRICES

All shares

## SOURCE

### Source agencies

Data are compiled by the Mexico Stock Exchange (*Bolsa de valores de México*).

### Key national publication sources

Data are available in the monthly publication Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

Indice de precios de las acciones cotizadas en bolsa: índice general

### Breakdown available

Aggregated indices are calculated for six sectors of economic activity (mining, manufacturing, construction, trade, transport and communication and services) as well as for the total index.

### Run of data available

Data are available from January 1970.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are published by national source in base 30th October 1978=100.

## CONCEPTS AND COVERAGE

### Definition

Data measure the changes in share prices observed on a selected sample of companies.

## Coverage

### Geographical coverage

The whole country.

### Statistical population

Data cover companies from the industrial, commercial and service sectors.

## DATA COLLECTION

### Reporting units

Companies which meet the selection criteria (see Sample frame below).

### Reporting method

Data are collected by direct daily observations of the quoted share prices on the Mexico Stock Exchange.

### Survey details

#### Survey description

The sample is purposive, as described below.

#### Selection of companies

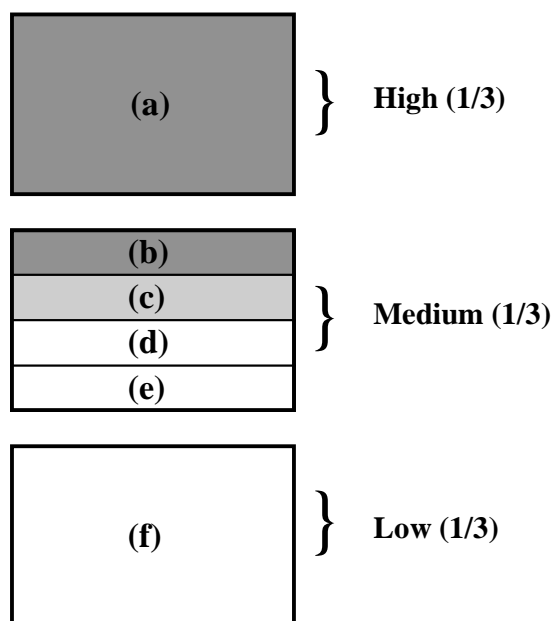
Companies are selected according to various criteria:

- Trading volume criteria:

Companies are ranked by decreasing trading volume and classified into three categories: high, medium and low trading volume. The medium trading volume category is sub-divided into four quartiles (see the diagram on page 48).

All companies in (a) and (b) are selected, together with a sample of companies in (c). This sample is based on criteria regarding capitalisation value and sector of activity.

## Share prices - Trading volume



- Additional criteria:
  - (i) companies whose shares are suspended for at least one month or which are due to be suspended are excluded from the sample.
  - (ii) when companies issue several shares and these represent more than 15% of the total trading volume of the sample, only the price of the share with the higher trading volume is observed.
  - (iii) subsidiaries of holding companies are excluded from the sample, if: both the subsidiary and the holding company have a high level of trading volume, and the subsidiary company represents at least 75% of the holding group's assets.

## Updating sample

The sample is updated every two months and all previous criteria are re-evaluated.

## Sample size

At the beginning of 1996, 35 companies were included in the sample. This number has varied between 35 and 50 in the period from January 1970 to the present time.

## DATA MANIPULATION

### Aggregations / Grossing up

#### Aggregation method

Daily indices are calculated as the ratio of the weighted average of price quotations of the current day to the corresponding average of the previous working day.

Fixed base monthly indices are then calculated by chaining the daily indices.

#### Weights for aggregation

Weights used to calculate aggregated indices are derived from the daily market capitalisation value of each company.

Adjustments to capitalisation values are made to take into account share price changes due to dividend payments, changes in the number of shares, splitting of shares, new share issues and subscription to convertible bonds.

## DATA QUALITY AND TIMELINESS

### Timeliness and release dates

Data for a particular month  $m$  are published by the Bank of Mexico during the month  $m+1$ .

# FOREIGN FINANCE

Exchange rate, Peso/US dollar  
US dollar exchange rate: spot

---

## SOURCE

### Source agencies

*Exchange rate, Peso/US dollar.* Data are compiled by the OECD on the basis of monthly returns from the Bank of Mexico.

*US dollar exchange rate: spot.* Data are compiled by the Bank of Mexico and are obtained by the OECD from by the International Monetary Fund (IMF).

### Key national publication sources, series title

*Exchange rate, Peso/US dollar.* Data are calculated by the OECD and are therefore not available in national publications.

*US dollar exchange rate: spot.* Data are published in the monthly IMF, International Financial Statistics (IFS) bulletin: Exchange rate, US dollar per Peso, Mexico. Data are also available in the Bank of Mexico, *Carpeta de Indicadores Económicos*, with the following title: *Tipo de cambio para solventar obligaciones en moneda extranjera, venta.*

### Run of data available

*Exchange rate, Peso/US dollar.* Data are available from January 1963.

*US dollar exchange rate: spot.* Data are available from February 1987.

### Periodicity

All data are compiled on a monthly basis.

## Unit of measurement

*Exchange rate, Peso/US dollar.* Data are expressed in Peso per US dollar.

*US dollar exchange rate: spot.* Data are expressed in US Cents per Peso.

## CONCEPTS AND COVERAGE

### Definition

*Exchange rate, Peso/US dollar.* Data refer to the interbank exchange rate used for transactions with a value date at 48 hours.

*US dollar exchange rate: spot.* Data refer to the closing exchange rate used in the sale of bonds in foreign currency.

### Coverage

#### Reference period

*Exchange rate, Peso/US dollar.* Rates are observed each working day of the reference month. The monthly exchange rate published in *Main Economic Indicators* is the average of daily rates.

*US dollar exchange rate: spot.* Rates are closing rates observed on the last working day of the month at 6.30 p.m.

## DATA COLLECTION

### Reporting method

Data are collected directly at the Mexico Stock Exchange.

# FOREIGN FINANCE

Official reserves excluding gold

---

## SOURCE

### Source agencies

Data are compiled by the International Monetary Fund (IMF).

### Key national publication sources

Data are available in the monthly publication IMF, International Financial Statistics.

### Series title in national publications

Official reserves, excluding gold: Mexico.

### Run of data available

Data are available from January 1986.

### Periodicity

Data are compiled on a monthly basis.

## Unit of measurement

Data are expressed in Special Drawing Rights (SDRs).

## CONCEPTS AND COVERAGE

### Definition

Official reserves include the value of monetary authorities' holding of SDRs, foreign exchange and their reserve position in the IMF.

## DATA QUALITY AND TIMELINESS

### Timeliness

Data for a particular month  $m$  are published by the IMF during the month  $m+2$ .

# FOREIGN FINANCE

## Real effective exchange rate

---

### SOURCE

#### Source agencies

Data are compiled by the OECD.

#### Run of data available

Data are available from January 1972.

#### Periodicity

Data are compiled on a monthly basis.

#### Unit of measurement

Data are expressed in base 1990=100.

### CONCEPTS AND COVERAGE

#### Definition

The real effective exchange rate is an indicator of competitiveness which takes into account both export and import competitiveness. It compares each country's Consumer Price Index (CPI) to the CPI of its main trading partners. A fall indicates an improvement in competitive position.

The calculation includes twenty-five of the OECD Member countries (Czech Republic, Hungary and Poland are excluded, Belgium-Luxembourg is treated as one country), and three of the Dynamic Asian Economies (Hong-Kong, Singapore and Chinese Taipei). Thirty markets are considered: 24 OECD countries and 6 non-OECD zones (Korea was still included in non-OECD zones in December 1996).

The calculation of real effective exchange rates uses a system of weights based on a double-weighting principle: for each year the procedure calculates for each country the relative importance of its competitors on each market and then weights it according to the relative importance of the different markets for that country. Real effective exchange rates are computed by deflating geometric averages of indices of nominal exchange rates by geometric averages of consumer price indices. Averages are then calculated each year with the weighting system of the previous year. A fuller description of this methodology is given in *OECD's Indicators of International Trade and competitiveness, OECD Economic Department Working Papers*, No 120, Martine Durand, Jacques Simon and Colin Webb.

# FOREIGN TRADE

Imports f.o.b.  
Exports f.o.b.  
Net trade (f.o.b.-f.o.b.)

---

## SOURCE

### Source agencies

Foreign trade figures are compiled by a working group composed of INEGI, Bank of Mexico and the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*).

### Key national publication sources

Data are available in the monthly publications INEGI, *Balanza Comercial de México* and *Estadísticas del Comercio Exterior*. Data are also published in the monthly publication Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

- (a) Importación FOB, Total
- (b) Exportación FOB, Total
- (c) Saldo comercial FOB-FOB

### Breakdown available

Aggregated data are available in national publications for trade by country, by goods and by final use of goods (intermediate, investment, consumer). Data are also published according to the Harmonised System at the 8-digit level and the International Standard Industrial Classification (ISIC).

### Run of data available

Data are available from January 1980.

### Periodicity

Data are compiled on a monthly basis.

### Unit of measurement

Data are expressed in US dollars.

## Methodological references

A complete methodology of the foreign trade series can be found in the monthly publications INEGI, *Balanza Comercial de México* and *Estadísticas del Comercio Exterior*.

Information on methodology is also available in INEGI (1994), *ABC de la Estadística de Comercio Exterior de México*.

## CONCEPTS AND COVERAGE

### Definition

Data refer to trade of goods and services from and to Mexico. Transactions in gold, refined silver, currencies, bank notes and shares are excluded.

From 1991, foreign trade statistics also include re-exports and re-imports, where these refer to goods leaving or entering the country for a limited period in order to be transformed, repaired or stored. This refers in particular to In-bond export industries (see the chapter on Industrial production).

Foreign trade data refer to general trade, i.e. transactions from/to bonded warehouses and free zones are included in import and export statistics.

Data are published on a f.o.b. basis, i.e. cost, insurance and freight are not included in the value of transactions.

### Coverage

#### Reference period

Data refer to all transactions in the reference month.

#### Geographical coverage

The whole country.

### **Statistical population**

Data cover only those transactions for which customs formalities have been completed.

### **Classification coverage**

The classifications used are the Harmonised System (*Sistema Armonizado, SA*) and the International Standard Industrial Classification, ISIC (*Clasificación Industrial Internacional Uniforme*).

## **STANDARDS**

### **Standard systems / framework**

Data are compiled according to the Harmonised System and ISIC.

### **International comparability**

Statistics are compiled in line with international guidelines as they are based on the Harmonised system for the description and codification of products and partner countries.

## **DATA COLLECTION**

### **Reporting units**

Data are collected from the 81 customs houses of the country.

### **Reporting method**

The main source of the data is official customs declarations supplied by the Custom Authorities (*Administración General de Aduanas*). Import and export transactions are detailed in these declarations. Data are compiled from a daily collection of these transactions and are processed on magnetic tape. Approximately 1.1 million - 1.25 million transactions are processed each month.

Data are completed with direct reports from external sources, in particular for trade of crude petroleum, motor vehicles and automotive parts.

The main characteristics of the transactions (price, volume, detailed description of the product, partner country) are collected in order to compile the complete foreign trade statistics.

## **DATA MANIPULATION**

### **Aggregations / Grossing up**

#### **Aggregation methods**

Data are converted into US dollars using the daily Peso/US dollar exchange rate from the Bank of Mexico.

*Net trade* (f.o.b.-f.o.b.) is calculated as total *exports* (f.o.b.) minus total *imports* (f.o.b.).

### **Seasonal and other adjustments**

Seasonal adjustments are carried out by INEGI using the X-11 ARIMA/88 and take into account adjustments for Easter.

The seasonally adjusted series are corrected for trading days.

## **DATA QUALITY AND TIMELINESS**

### **Preliminary estimates**

Preliminary figures are indicated with a "P" in the publication *Balanza comercial de México*.

### **Revision policy**

Data are revised each quarter for the latest 12-month period.

### **Timeliness and release dates**

Data for a particular month *m* are published between the 8th and the 12th of the month *m+1*.

A calendar of release dates is issued by INEGI on a regular basis. This information can be accessed via Internet on the INEGI server:  
<http://www.inegi.gob.mx/>.

# BALANCE OF PAYMENTS

- (a) Trade balance
- (b) Net services
- (c) Net income
- (d) Net transfers
- (e) Current balance
- (f) Net capital movements
- (g) Change in official reserves
- (h) Net errors and omissions

---

## SOURCE

### Source agencies

Balance of Payments data are compiled by the Bank of Mexico.

### Key national publication sources

Data are published in the monthly publication Bank of Mexico, *Carpeta de Indicadores Económicos*.

### Series title in national publications

- (a) Saldo de la balanza comercial
- (b) Servicios no factoriales
- (c) Servicios factoriales (renta)
- (d) Transferencias
- (e) Cuenta corriente
- (f) Cuenta de capital
- (g) Errores y omisiones
- (h) Variación de la reserva bruta

### Run of data available

Data are available from first quarter 1970, except for *Net income* for which data are available from first quarter 1982.

### Periodicity

Data are compiled on a quarterly basis.

### Unit of measurement

Data are published in US dollars.

## CONCEPTS AND COVERAGE

### Definition

The Balance of Payments figures are compiled on a transactions basis. They summarise transactions between residents of Mexico and the rest of the world (non-residents).

Balance of Payments data are presented according to the major accounts: *Current balance*, *Net capital movements*, *Change in official reserves* and *Errors and omissions*.

The **Current balance** comprises *Trade balance*, *Net services*, *Net income* and *Net transfers*.

- (i) The *Trade balance* records the value of goods changing ownership between residents and non-residents. Data are registered on a f.o.b. basis, i.e. cost, insurance and freight are not included in the value of transactions.

Data include the value of goods imported and exported by In-bond export industries (see the chapter on Industrial production).

- (ii) *Net services* include Transport, Travel, Reinsurance and other services.

- Transport: includes transport services, by sea, air and train, provided to non-residents; rental of transport equipment and other services to Mexican staff staying abroad; and receipts from foreigners using Mexican ports and airports.

- Travel: refers to expenditure by residents travelling in a foreign country and receipts from non-residents travelling in Mexico. Travellers are classified into two categories: tourists (travellers who stay at least one night in the country) and excursionists (travellers who do not stay overnight in the country).
  - Reinsurance: receipts (debits) correspond to amounts received (paid) by Mexican insurance companies for premiums of reinsurance taken abroad, and reinsurance reimbursements paid by (received from ) non-residents.
  - Other services: cover telecommunications, including international telephone calls and use of satellites, as well as diplomatic expenses of Mexican authorities abroad and non-resident authorities in Mexico.
- (iii) *Net income* includes Interest, Profits, Royalties and Labour income.
- Interest: refers to interest paid or generated by Mexican companies abroad and by foreign companies in Mexico.
  - Profits: cover profits of resident companies with a share in the capital of a foreign company.
  - Royalties: refer to receipts from royalties from non-resident economies (foreign countries).
  - Labour income: amount of remittances which the economy receives from residents living in the border area with the United States who have a legal working activity.
- (iv) *Net transfers* records the following transactions:
- Family remittances: are remittances from Mexicans living in the United States (with or without a residence permit) to family or friends living in Mexico.
  - Other transfers: are mainly donations and retirement pensions received by non-residents living in Mexico.

**Net Capital movements** data record the changes in assets and liabilities arising from transactions between Mexico and the rest of the world:

- (i) Liabilities cover all financial liabilities with the rest of the world incurred by the residents of Mexico, that is:

- Loans and deposits: changes in foreign liabilities in the form of loans and deposits.
  - Foreign investment: covers direct and portfolio investments:
    - Direct investment: includes investments in new companies or capital increases in existing companies; non distributed profits which are reinvested in the company; and current account transactions between associated companies, which include transactions arising from debt.
- The value of imports from In-bond export industries (see the chapter on Industrial production) are recorded as direct investment when these come from the main company residing abroad, although these transactions do not generate a change of ownership.
- Portfolio investment: includes investment on the stock market, amounts in Mexican Peso held by non-residents and amounts in foreign currencies (promissory notes, bonds, etc.) held by residents.

- (ii) Assets: refer to all financial assets held by non-residents. These include:
- Assets of the Mexican banks which cover credits, deposits and bonds.
  - Deposits of the non-financial sector in foreign banks.
  - Commercial credits, which refer to credits granted by a governmental agency to foreign importers of Mexican manufacturing products.
  - Warrants of external debt which can be issued in US bonds for example.

The **Change in official reserves** balance records the changes of assets which are considered by the monetary authorities to be available for use in meeting balance of payments. Figures also include adjustments for changes in the value of gold and silver reserves.

**Net errors and omissions** is a balancing item for the *Current balance, Net capital movements* and *Changes in official reserves*.

## Coverage

### Geographical coverage

The whole country.

### Statistical population

Residents of the Mexican economy.

## STANDARDS

### Standard systems / framework

Balance of Payments data are compiled according to the methodology of the *Balance of Payments Manual, Fifth edition* published by the IMF.

In particular, sign conventions are followed. A plus sign indicates :

- in the *Current balance*: an outflow of goods and services or payments received from non-residents.
- in *Net capital movements*: a decrease in residents' holdings in foreign assets, or an increase in their liabilities.

### Departures from international standards

The value of imports from In Bond export companies (see the chapter on Industrial production) are recorded as direct investment when these come from the main company residing abroad, although these transactions do not generate a change of ownership. The IMF does not make any explicit reference to that phenomenon in the *Balance of Payments Manual, Fifth edition*.

The Bank of Mexico presents data for *Change in official reserves* according to the opposite IMF sign convention (for the Bank of Mexico a plus sign indicates an increase of assets). Therefore the figures published in *Main Economic Indicators* for *Change in official reserves* have the opposite sign to those published by the Bank of Mexico.

## DATA COLLECTION

### Reporting units

Data are derived from official customs declarations, administrative sources and various surveys for data on travellers or on companies financed by foreign capital, for example. Information from private institutions, from the National Commission for Banks and from the Stock Exchange is also used.

## DATA MANIPULATION

### Other manipulations

Balance of Payments data are compiled in US dollars. Some data are collected directly in US dollars. For those data which are collected in Mexican Pesos, the following exchange rates have been used to convert the transactions into US dollars:

- the daily or monthly exchange rate, depending on the periodicity of the reported transactions.
- the end of period exchange rate for transactions which are calculated as the difference between final and initial balances.

## DATA QUALITY AND TIMELINESS

### Timeliness and release dates

Data for a particular quarter *q* are published by the Bank of Mexico 60 days after the end of the reference quarter.

A calendar of release dates is issued by the Bank of Mexico. This information can be accessed via Internet on the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*) server:  
<http://www.shcp.gob.mx/>.

# Annex 1

## INEGI surveys

**Industrial sector  
Commercial activities  
Urban employment**

# INDUSTRIAL SECTOR

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This section contains information on the main surveys conducted on industrial activities. These surveys are used particularly in the compilation of industrial production statistics.

## THE MONTHLY INDUSTRIAL SURVEY

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Refer to Table A1.1 for a summary of the survey.

### SOURCE

#### Methodological references

A complete methodology of the survey can be found in the publication INEGI, *Encuesta Industrial Mensual, Resumen Anual*.

### CONCEPTS AND COVERAGE

#### Reference period

Data refer to production for the whole reference month.

#### Classification coverage

1994 Mexican Classification of Activities and Products (*Clasificación Mexicana de Actividades y Productos*, CMAP).

The different levels of the CMAP are: Major division, division (only for manufacturing, 1-digit level), branch (2-digit level), group (3-digit level), class of activity (4-digit level) and products.

### STANDARDS

#### Standard classifications / nomenclatures

The 1994 CMAP is compatible with the International Standard Industrial Classification (ISIC) 1990, Rev 3 at the 4-digit level.

### DATA COLLECTION

#### Reporting units

Information is collected for major manufacturing establishments with more than 6 employees according to the 1994 industrial census.

#### Reporting method

Data are collected by questionnaire each month by enumerators from regional offices. They deliver the questionnaire to each establishment surveyed and help to complete it if necessary. Enumerators come back later in the month to collect the questionnaire.

#### Survey details

##### Description of questionnaire

The Monthly Industrial Survey (*Encuesta Industrial Mensual*, EIM) collects information on employment, wages, hours worked, production and sales as well as the value of In-bond export services (see the chapter on Industrial production).

##### Master list

The sample frame is based on the 1994 INEGI industrial census.

##### Survey description

The sampling unit is the manufacturing establishment. Establishments are classified according to their principal activity (which may change over time) in CMAP.

The sample is mainly purposive. In each of the 205 classes of activity covered by the survey, establishments are ranked by decreasing production value, according to the 1994 industrial census. Major establishments (see Reporting units above) are selected from this list to represent at least 80 % of the total value of the manufacturing production in each class of activity.

For some classes of activity, where enterprise turnover is too small, a probabilistic sample has been used to complete the sample described above. In each class of activity, a maximum of 140 establishments are selected nation-wide, even if they do not cover 80% of the total value of the production of these classes of activity.

In each establishment selected, data for all products are collected.

##### Sample size

Information is collected in 6 884 manufacturing establishments for 4 000 products in 205 classes of ac-

tivity of the CMAP. Prior to 1993, data were collected in 3 218 manufacturing establishments for 2 647 products in 129 classes of activity. Prior to 1987, information was collected in 1264 establishments for 373 products in 57 classes of activity.

#### **Non-response rate**

Non-response is estimated to correspond to 5% of the total production value. Establishments which do not respond to the questionnaire are revisited with a view to decreasing the non-response rate.

## **OTHER INDUSTRIAL SURVEYS**

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The Monthly Survey on Mining and Metallurgy (*Encuesta Minerometalúrgica Mensual*, EMM) is conducted jointly by INEGI and the Ministry of Energy (*Secretaría de Energía*) and refers to mining, refining and the further treatment of metallic and non-

metallic minerals. The main products covered are gold, silver, lead, copper, sulphur, fluorspar and iron.

The survey on Monthly Statistics of Exports from In-bond export industries (*Estadística Mensual de la Industria Maquiladora de Exportación*, EMIME) is conducted by INEGI. This is a full-scope survey which covers the 2 000 establishments engaged in In-bond export activity (*maquiladoras*).

Results of surveys conducted by Chambers of Commerce and Producers' associations are also used to compile the industrial production data. These include: National Chamber of sugar and alcohol industries, National Chamber of beer and malt, Manufacturers and importers of paper, Mexican petroleum (*Petróleos Mexicanos*, PEMEX), National Chamber of cement, National Chamber of iron and steel, Mexican automotive industry association and National association of producers of buses and trucks.

Table A1.1

**Monthly Industrial Survey**  
*Encuesta Industrial Mensual, EIM*

<b>Start of the current survey</b>	1975.
<b>Periodicity of the survey</b>	Monthly.
<b>Reference period</b>	The whole month.
<b>Geographical coverage</b>	The whole country.
<b>Reporting units</b>	Major manufacturing establishments (more than 6 employees).
<b>Reporting method</b>	Data are collected by questionnaire. Enumerators deliver the questionnaire to the surveyed establishments and come back later in the month to collect it.
<b>Master list</b>	1994 INEGI industrial census.
<b>Survey description</b>	The sample is mainly purposive (establishments are selected according to criteria on production value). For some classes of activity where production turnover is too small, the sample is probabilistic.
<b>Sample precision</b>	Information is collected for 4 000 products in 6 884 establishments.
<b>Non-response rate</b>	Around 10 % of the total production value.

# COMMERCIAL ACTIVITIES

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Table A1.2

**Monthly Survey on Commercial Establishments**  
*Encuesta Mensual sobre Establecimientos Comerciales, EMEC*

<b>Start of the current survey</b>	1988.
<b>Periodicity of the survey</b>	Monthly.
<b>Reference period</b>	The whole month.
<b>Geographical coverage</b>	33 cities throughout the country.
<b>Reporting units</b>	All commercial establishments.
<b>Reporting method</b>	Data are collected by questionnaire which is completed during an interview with the respondent.
<b>Master list</b>	1994 INEGI commercial census.
<b>Survey description</b>	The sample is purposive (establishments are selected on the basis of turnover).
<b>Sample size</b>	Information is collected in 10 160 commercial firms for 19 486 establishments.
<b>Non-response rate</b>	Around 4 % of the total sample size.

# URBAN EMPLOYMENT

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Table A1.3

**National Survey on Urban Employment**  
*Encuesta Nacional de Empleo Urbano, ENEU*

<b>Start of the current survey</b>	1985.
<b>Periodicity of the survey</b>	Quarterly (a sub-sample is interviewed monthly).
<b>Reference period</b>	Information on employment refers to the week before the interview.
<b>Geographical coverage</b>	41 cities throughout the country.
<b>Reporting units</b>	All households.
<b>Reporting method</b>	Data are collected by questionnaire which is completed during an interview with the respondent.
<b>Master list</b>	1990 INEGI population census.
<b>Survey description</b>	The sample is stratified and probabilistic (in each stratum households are selected at random).
<b>Sample size</b>	Information is collected on about 94 000 households at national level.
<b>Non-response rate</b>	Around 15 % of the total sample size.

## **Annex 2**

### **Bank of Mexico surveys**

**Business sector**  
**Cost of construction**  
**Producer prices**  
**Consumer prices**

# BUSINESS SECTOR

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Table A2.1

**Business survey - manufacturing**  
*Encuesta de coyuntura*

<b>Start of the current survey</b>	1982.
<b>Periodicity of the survey</b>	Monthly.
<b>Reference period</b>	The questionnaire requests data for the current month compared with the previous month.
<b>Geographical coverage</b>	The whole country.
<b>Reporting units</b>	Manufacturing establishments with more than 10 employees.
<b>Reporting method</b>	Data are collected by mail questionnaire.
<b>Master list</b>	1990 INEGI industrial census.
<b>Survey description</b>	Establishments were selected according to their size in each region; regions are regarded as strata.
<b>Sample size</b>	1 145 were selected in the sample; however, in 1996 the questionnaire was sent only to 969 establishments.
<b>Non-response rate</b>	Around 38% of the total sample size.

# COST OF CONSTRUCTION

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Table A2.2

## Price survey<sup>1</sup>

<b>Start of the current survey</b>	1973.
<b>Periodicity of the survey</b>	Monthly.
<b>Reference period</b>	The whole month.
<b>Geographical coverage</b>	23 cities throughout the country.
<b>Reporting units</b>	Enterprises engaged in construction activity.
<b>Reporting method</b>	Prices are collected directly by enumerators.
<b>Master list</b>	1970 Population census.
<b>Survey description</b>	Selection of the cities: within each region, cities were selected according to their size (small, large). In all 23 cities were selected.
<b>Sample precision</b>	2 773 prices for 42 construction materials and 17 types of building tasks are collected in 280 enterprises.

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<sup>1</sup> Questionnaire not available.

# PRODUCER PRICES

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Table A2.3

## Price survey<sup>1</sup>

<b>Start of the current survey</b>	1981.
<b>Periodicity of the survey</b>	Monthly.
<b>Reference period</b>	The whole month.
<b>Geographical coverage</b>	The whole country.
<b>Reporting units</b>	Enterprises and producers' associations or first dealers (for agricultural products).
<b>Reporting method</b>	Prices are collected directly by enumerators.
<b>Master list</b>	1993-94 Bank of Mexico Enterprise Census.
<b>Survey description</b>	<ul style="list-style-type: none"><li>– The 555 generic products were selected according to production value. Specific items were then selected on the basis of sales value.</li><li>– Enterprises were selected according to sales criteria.</li></ul>
<b>Sample size</b>	12 000 prices are collected each month for 555 generic products.

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<sup>1</sup> Questionnaire not available.

# CONSUMER PRICES

Table A2.4

## Price survey<sup>1</sup>

<b>Start of the current survey</b>	1969.
<b>Periodicity of the survey</b>	Fortnightly.
<b>Reference period</b>	The whole month.
<b>Geographical coverage</b>	46 cities throughout the country.
<b>Reporting units</b>	All retail outlets.
<b>Reporting method</b>	Prices are collected directly by enumerators, except for rent, gas, and domestic services which are collected directly from households.
<b>Master list</b>	1990 INEGI Population census.
<b>Survey description</b>	<ul style="list-style-type: none"><li>– 313 generic products representative of the consumption of the Mexican families were chosen according to the results of the 1989 ENIGH survey. Specific items were then selected from the results of a national survey on Brands and Packaging.</li><li>– In each region cities were selected according to their size; in all 46 cities were chosen.</li><li>– Retail outlets were selected according to their turnover.</li></ul>
<b>Sample size</b>	170 000 prices are collected each month in 14 000 outlets for 313 generic products.

<sup>1</sup> Questionnaire not available.