US Trade datamart:
Methodological note

September 2020

Methodological note of US Trade datamart

Copyright 2020 StudiaBo srl
September 2020

StudiaBo srl
via Santo Stefano, 57
40125 Bologna Italy

Table of Contents

Presentation

This document contains a description of the characteristics of the database **Conjuncture USA**, containing quarterly foreign trade flows of the United States.

The foreign trade of the United States is a useful set of information to support decision making by both the corporate sales side and from that of supply. Using these data it is possible, in fact, to have information on the economic dynamics of sales in the U.S. market for a particular product. It is also possible to know at what price a specific product is sold and, above all, whether the U.S. market provides a significant *premium price* for greater quality. Also, this information allows to assess the competitiveness of different competitor countries in the U.S. market, by highlighting their strengths and weaknesses.

On the other hand, these data can provide information on the dynamics of the prices paid in the U.S. market for a given commodity and from which countries the market tends to procure (and at what price) such commodities.

The information derived from DW USATrade are particularly informative not only for the importance of the U.S. in worldwide merchandise trade, but also for the following distinctive elements of the collection processes of U.S. companies' customs declarations:

Merchandise Detail : statistics on U.S. foreign trade have a particularly high granularity, up to a level (HS10digit) consisting of over 27000 product codes regarding exports and over 35000 for imports;

Update rate : U.S. foreign trade statistics are characterized by a particularly well established administrative structure, which enables their timely updating.

These features regarding data sources, together with appropriate methodologies of *data mining*, allow you to have a highly informative database, capable of supporting the international marketing skills of manufacturing SMEs.

Database's Features

Source

The source of the database **Conjuncture USA** is the U.S. Census Bureau, which carries the statistics of foreign trade of the companies of the United States of America through the portal UsaTrade Online (https://usatrade.census.gov/).

Distinctive Elements

The database **Conjuncture USA** presents the following distinctive elements:

consistency : through the adoption of a classification called *Harmonized System* (HS), perfect consistency is ensured between the statements of U.S. companies and, for example, European companies. Thanks to this you can compare the flows of single products between the U.S. and European markets.

granularity : statistics about U.S. foreign trade are collected monthly, for all the partner countries of USA, at a very detailed products level (HS10digit). This classification has the highest level of detail between the customs classifications for foreign trade: it comprises up to 27000 different products in Export and up to 35000 in Import. The classification, as mentioned, fits in perfectly to the HS 6 digit, conventionally in use worldwide.

timing : data are available almost in *real-time*.

Data management and processing

The procedures developed by StudiaBo for creating the database **Conjuncture USA** incorporate the following methodologies of data mining:

data control : some control filters are applied to elementary data, in order to identify any outliers. Once possible anomalies have been detected, these are handled by the adoption of appropriate statistical techniques to make them consistent with the rest of the information.

data aggregation : once checked and if necessary cleaned of possible outliers, elementary data are aggregated into quarterly time series, according both to the different levels of Ulisse Products Classification - related to the concepts of Industry (UL20), Sector (UL200) or Strategic Business Unit (UL3000) - and to the Ulisse Countries Classification (more than 150 countries and relative geographical regions).

data organization : time series are then organized for a given product in terms of U.S. foreign interchange with a particular partner (country or region); in this way you can have a clear indication of the dynamics of trade, both in export and import, between the United States and the specific partner;

estimation of Quarter-End : with the aim to exploit all the information available at a certain time, StudiaBo has developed ARMA forecasting methodologies, which are particularly reliable tools to make estimations in the short term.

Structure

The database **Conjuncture USA** has the following *Dimensions*:

PRODUCT : the traded merchandise, which in turn is available at the following levels:

- UL20: the most aggregate level of Ulisse Products Classification, which is similar to the concept of *Industry*;

- UL200: intermediate level of Ulisse Products Classification, which is similar to the concept of *Sector*;

- UL3000: most disaggregated level of Ulisse Products Classification, which is similar to the concept of *Strategic Business Unit*;

- HS10digit: Harmonized System code at 10 digit.

PARTNER : foreign partner of the flow, which in turn is available at the following levels:

- Geographic Region: upper level of the Ulisse Countries Classification;

- Country (more than 150 countries);

X_M : type of flow (export or import);

YEAR : reference year of the flow (since 2012);

QUARTER : reference quarter of the flow.

The database **Conjuncture USA** has the following *Measures*:

V : monetary values reported by all the U.S. companies.

HS-10digit Classification

The classification of US foreign trade is derived from the Harmonized Sysytem (HS) classification at 6-digit.

United State Census Bureau (www.census.gov) is the office of the Department of Commerce (www.commerce.gov) in charge for the classification of American foreign trade. This classification reaches 10-digit, which is generally referred to as *Harmonized Schedules*.

There are two different classifications: one relating to exports and one relating to imports.

Exports' classification

US export statistics are collected according to a classification called *Schedule B*[1]. This classification is a publication of the U.S. Census Bureau and is based on the *Harmonized Commodity Description and Coding System* (Harmonized System).

Within the database **Conjuncture USA** the classification related to this encoding is marked with the prefix "X_HS" followed by a numeric string of 10 digits.

Imports' classification

Statistics on US imports are classified according to the *Harmonized Tariff of the United States Annotated for Statistical Reporting Purposes* (HTSUSA). HTSUSA is a disaggregated version of the Harmonized System.

Within the database **Conjuncture USA** the classification related to this encoding is marked with the prefix "M_HS" followed by a numeric string of 10 digits.

---

[1] Statistical Classification of Domestic and Foreign Commodities Exported from the United States.