

Preliminary *Global MRIO Lab* data set

– Manual –

This manual contains information on the downloadable data set described in the article Lenzen, M., Geschke, A., Abd Rahman, M. D., Xiao, Y., Fry, J., Reyes, R., Dietzenbacher, E., Inomata, S., Kanemoto, K., Los, B., Moran, D., Schulte in den Bäumen, H., Tukker, A., Walmsley, T., Wiedmann, T., Wood, R. and Yamano, N. (2017) The Global MRIO Lab – charting the world economy. *Economic Systems Research*, **Special Issue on Input-Output Virtual Laboratories**. <http://dx.doi.org/10.1080/09535314.2017.1301887>

A set of preliminary MRIO time series data has been created using the *GlobalMRIO Lab*. This data set is published in four different classifications:

1. Eora25
2. 2011 OECD inter-country input-output (ICIO) tables (61 regions¹ with 34 sectors² each)
3. IDE-JETRO 2005 Asian International Input-Output Table (Indonesia, Malaysia, Philippines, Singapore, Thailand, China, Taiwan, Japan, USA, India, Hong Kong, the EU and the rest of the world, and 76 sectors; IDE-JETRO 2015).
4. GTAP (140 regions³ with 57 sectors⁴)

Note that these data sets are NOT the Eora25, GTAP, IDE-JETRO, or OECD datasets, but datasets generated using the Global MRIO Lab which are expressed in the classifications listed above.

Each zip files contains files relating to one of these classifications, and contains three sets of files:

1. The numerical results files for the MRIOs including satellite blocks.
2. Files containing the labels for each data file.
3. A set of heat maps of the basic price sheet for each year of the time series.

Each set of files is located within its own subdirectory.

The contents of each file are identifiable through the individual filenames.

¹ http://www.oecd.org/sti/ind/ICIO2015_Countries_Regions.pdf.

² http://www.oecd.org/sti/ind/ICIO2015_Industries_Items.pdf.

³ <https://www.gtap.agecon.purdue.edu/databases/regions.asp?Version=9.211>.

⁴ https://www.gtap.agecon.purdue.edu/databases/v9/v9_sectors.asp.

Numerical results files

The numerical results files are saved in csv format and contain only numerical values. The full data set is divided into a number of blocks. Each block is identifiable by the following attributes:

- Year,
- Mark-up (valuation sheet). The list of sheets for each MRIO is provided further down.
- Part of the MRIO (transactions block T, value-added block V, or final demand block Y), and
- Monetary results OR standard deviations.

The filename contains the necessary information. For example, the filename

GlobalMRIOLab_Eora25_T_2008_Markup001.csv

indicates that the file contains the transactions block of the MRIO for the year 2008 for mark-up 1 (basic prices) in Common25 classification. The file named

GlobalMRIOLab_Eora25_T_STDDEV_2008_Markup001.csv

contains the standard deviations values for the same dataset.

All values are expressed in thousand US dollars (current prices).

Each MRIO feature five sheets, which are identical with the five sheets of the Eora model:

1. basic price
2. trade margin
3. transport margin
4. taxes
5. subsidies

Labels

For each block of the MRIO – T, V, Y, the row and column labels are provided in individual files. The filename indicates the which labels are included in the file. For example, the file

Eora25_Y-labels_cols.csv

contains the labels for the columns of the final demand block.

Heat maps

Heat maps are provided for all basic-price sheets of the time series. The basic-price sheet is comprised of T-, Y-, and V-block in a single data set. Each data point is represented by a coloured cell. The colour of the cell indicates the order of magnitude of the data point. In order to ensure that small data points are also visible in the heat maps, the logarithm of each data point is displayed instead of its absolute value.

The file names for the heat maps contain the data year as well as the project name. For example

Heatmap_GlobalMRIOLab_Eora25_basicprice_year2010.jpg .

References

IDE-JETRO (2015) *Asian International Input-Output Table*. Internet site http://www.ide.go.jp/Japanese/Publish/Books/Tokei/pdf/2005ASIA_TechnicalNotes.pdf, Chiba, Japan, Institute of Developing Economies - JETRO.