Methodological note for calculating the indirect and induced jobs of the Saint-Gobain Group's production and distribution activities
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Definitions

- An indirect job is a job supported by the purchases generated by the Saint-Gobain Group's activity among its subcontractors and suppliers.
- An induced job is a job supported by the purchases within the national economy made by the direct employees of the Saint-Gobain Group through the wages they receive and by the employees of the Saint-Gobain Group's suppliers to the extent of their solicitation in connection with the purchases generated by the Saint-Gobain Group's activities.

Model

The model used and adapted by EY to model the propagation of an expenditure shock within a given economy is based on the work of Wassily Leontief. Such work will earn him the Nobel in economics in 1973.

This work relies on the use of symmetric input-output tables (SIOT) to model the interdependencies between each and every sectors of a given economy. By combining this modeling of the economy with the employment intensity of each sector constituting it, it becomes possible to determine, given a level of expenditure, the effect by sector and by rank in terms of employment.

For indirect jobs, this level of expenditure corresponds to the Saint-Gobain Group's purchases. For induced jobs, it corresponds to the gross salaries paid by the Saint-Gobain Group to its employees, adjusted for employee social contribution, income tax and savings as well as the salaries paid by the Saint-Gobain Group's suppliers to their employees to the extent of their solicitation in connection with the purchases generated by the Saint-Gobain Group's activities, adjusted for the same effects.

Countries coverage

To increase the geographical coverage of the model and capture feedbacks (example of an economic agent registered in France buying raw materials from a supplier located in China who had to resort to machinery purchased in France), a multi-region input-output model (*MRIO*) has been developed.

This model contains 189 countries such that each and every country in which purchases were made by the Saint-Gobain Group is actually modeled and no additional assumption necessary to implement (grouping of countries, assimilation of one country to another, etc.)

Purchases coverage

Coverage rates for purchasing data are 98.7% and 91% for production and distribution entities respectively.

Primary data (Specific to the company)

- The production and distribution purchasing data considered for the study covers the period from January 1st to December 31st, 2015.
- Direct employment and payroll data for production and distribution activities corresponds to HR reporting for 2015 (January 1st to December 31st).
- The added value and tax data for the production and distribution activities corresponds to the financial reporting for 2015 (January 1st to December 31st).

Secondary data (statistics)

Input-output tables and corresponding sectorial employment intensities are derived from the 26-sector EORA database[1]. Most recent data were considered.

[1] Lenzen, M., Kanemoto, K., Moran, D., Geschke, A. Mapping the Structure of the World Economy (2012). Env. Sci. Tech. 46(15) pp 8374-8381. DOI:10.1021/es300171x

Lenzen, M., Moran, D., Kanemoto, K., Geschke, A. (2013) Building Eora: A Global Multi-regional Input-Output Database at High Country and Sector Reso lution, Economic Systems Research, 25:1, 20-49, DOI:10.1080/09535314.2013.769 938