

## Sources and methods Canada

The Canadian data has been prepared by Statistics Canada for the EU KLEMS database, using the same methodology and industrial classifications. Additional notes by Statistics Canada can be found below. The industry concordance file is appended as well.

### **A Note on the Labour Data and Capital Data for Canadian Industries in the EU KLEMS**

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The labour data and capital data for Canada in the EU KLEMS are prepared by the Canadian Productivity Accounts of Statistics Canada for the EU KLEMS database. Those data are used to estimate labour input, capital input and multifactor productivity growth in the EU KLEMS. The labour data include hours worked and labour compensation by sex, age group, and educational attainment for the period 1961 to 2006. Capital data include investment, capital stock and capital compensation of different types of physical assets for the period 1961 to 2004. The labour data and capital data at a detailed industry level, according to the North American Industry Classification System (NAICS) are available on Statistics Canada socioeconomic database ([CANSIM](#)), table 383-0024 and 383-0025.

A description of the method used to derive labour data and capital data can be found in "User guide for Statistics Canada's annual multifactor productivity program," as part of *The Canadian Productivity Review* ([15-206-XIE2007014](#), free) series.

A discussion of how an analyst might use the database in such a way as to take into account the fact that it contains 'aberrant' observations can be found in "Estimating TFP in the presence of outliers and leverage points: An examination of the KLEMS dataset," as part of *Economic Analysis (EA) Research Paper Series* ([11F0027MIE2007047](#) free).

This is done because, in constructing the KLEMS database, the Productivity Accounts integrate data from different sources within Statistics Canada that are not always perfectly comparable with one another. This process serves to improve data accuracy or suitability by contributing to the production of time series that are consistent over time. By their nature, the survey systems that provide data to the SNA are often not 'time series' consistent. Industry and product classification systems have changed over time. Surveys (such as the Annual Survey of Manufactures) have changed their coverage.

Surveys have been restratified. Each of these changes may improve survey estimates at a given point in time—but serve to render analysis over time less coherent. While rough corrections are often provided by survey programs to account for the impact of changes in coverage or classification, the survey programs rarely provide all of the changes that are required to provide time-series coherence. The Productivity Accounts assemble the data and modify the data so as to improve its overall coherence.

But this process is not perfect. And unusual observations may not all consist of errors. Therefore, the database needs to be investigated carefully before it is used for particular purposes. The paper referenced above is there to remind users of the desirability of asking whether the data meet their purpose—not to suggest a particular solution for every project.

### Concordance Tables Canada NAICS and EU KLEMS NACE industries

EUK31	EU KLEMS industries	EUK	NAICS97	Naics97 adopted for Canada
1	AGRICULTURE, HUNTING, FORESTRY AND FISHING	AiB	11	11
2	MINING AND QUARRYING	C	21	21
3	FOOD , BEVERAGES AND TOBACCO	15t16	311+312	311+312
4	TEXTILES, TEXTILE , LEATHER AND FOOTWEAR	17t19	313+314+315+316	313+314+315+316
5	WOOD AND OF WOOD AND CORK	20	321	321
6	PULP, PAPER, PAPER , PRINTING AND PUBLISHING	21t22	322+323+3346+5111	322+323+3346+5111
7	Coke, refined petroleum and nuclear fuel	23	324	324
8	Chemicals and chemical	24	325	325
9	Rubber and plastics	25	326	326
10	OTHER NON-METALLIC MINERAL	26	327	327
11	BASIC METALS AND FABRICATED METAL	27t28	331+332	331+332
12	MACHINERY, NEC	29	333+3352	333+3352
13	ELECTRICAL AND OPTICAL EQUIPMENT	30t33	334+3351+3353+3359	334+3351+3353+3359
14	TRANSPORT EQUIPMENT	34t35	336	336
15	MANUFACTURING NEC; RECYCLING	36t37	337+339	337+339
16	ELECTRICITY, GAS AND WATER SUPPLY	E	22	22
17	CONSTRUCTION	F	23	23
18	Motor vehicle trade, retail sales of fuel and motor repairs	50	415+441+447+8111	8111
19	Wholesale trade	51	41 (excl. 415)	41
20	Retail trade and repair of household goods	52	44+45 (excl. 441+447)+8112+8113+8114	44+45 +8112+8113+8114
21	HOTELS AND RESTAURANTS	H	72	72
22	TRANSPORT AND STORAGE	60t63	48+493+5615	48+493+5615
23	POST AND TELECOMMUNICATIONS	64	491+492+5133	491+492+5133
24	FINANCIAL INTERMEDIATION	J	52	52
25	Real estate activities	70	531	531
26	Renting of m&eq and other business activities	71t74	532+5112+5142+541+55 +533	532+5112+5142+541+55 +533
27	PUBLIC ADMIN AND DEFENCE; COMPULSORY SOCIAL SECURITY	L	Government (excl. public health and education)	Government (excl. public health and education)
28	EDUCATION	M	61+public education	61+public education
29	HEALTH AND SOCIAL WORK	N	62+public health	62+public health
30	OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICES	O	512+5131+5132+5141+562+71+812+813+814 +(561 excl. 5611)	512+5131+5132+5141+562+71+812+813+814 +(561 excl. 5615)
31	PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS	P	814	