A Note on the Canadian Data in the EU KLEMS

John Baldwin Director, Economic Analysis Division, Statistics Canada Ottawa, Canada

January, 2012

The productivity estimates and related variables for Canada in the EU KLEMS are prepared by the Canadian Productivity Accounts of Statistics Canada for the EU KLEMS database, following EU KLEMS methodology. The data at a more detailed industry level, according to the North American Industry Classification System (NAICS) are available on Statistics Canada's socioeconomic database (CANSIM), table 383-0021, 383-0022, 383-0024 and 383-0025.

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* (<u>11F0027MIE2007047</u> 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.