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**DEPARTMENT OF ECONOMICS**

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**TOKYO WORLD KLEMS CONFERENCE:**

**Hold the Date: May 19-20, 2014**

The Third World KLEMS Conference will be held on May 19-20, 2014, in Tokyo, Japan, and will be hosted by the Research Institute of Economy, Trade and Industry ([www.rieti.go.jp/en/](http://www.rieti.go.jp/en/)). The conference will give special attention to KLEMS research in Asia, focusing on recent developments in China, India, Japan, and Korea. In addition, presentations will be given on data for other Asian countries participating in the World KLEMS Initiative, discussed below, such as Indonesia, Malaysia, and Taiwan.

The KLEMS framework provides data on sources of economic growth at the industry level – capital (K), labor (L), energy (E), materials (M), and services (S) inputs, and productivity. Industry-level productivity growth is critical to an understanding of economic growth and structural change. This reflects wide variations among industries in the development of technology and in patterns of investment. The second focus of KLEMS research is international comparisons based on purchasing power parities. These

comparisons are especially important in the formulation of growth policy for individual countries.

The original EU KLEMS study was completed in June 2008 and provided industry-level data on the sources of growth for 25 of the 27 EU member countries.

Two volumes have been published on the results of the EU KLEMS study:

Marcel P. Timmer, Robert Inklaar, Mary O'Mahony, and Bart van Ark, *ECONOMIC GROWTH IN EUROPE: A Comparative Industry Perspective*, Cambridge, Cambridge University Press, 2010.

Matilde Mas and Robert Stehrer, eds., *INDUSTRIAL PRODUCTIVITY IN EUROPE: Growth and Crisis*, Cheltenham, UK, Edward Elgar Publishing, 2012.

The data sets developed by the EU KLEMS project have been very valuable in understanding the slowdown in European economic growth that preceded the current financial and fiscal crisis. As European policy-makers begin to focus on removing barriers to the revival of economic growth, international differences in productivity will become central to the development of fruitful new directions for policy.

Updated data are available for the EU countries are posted on the EU KLEMS website:

<http://www.euklems.net/>

## World KLEMS Initiative

The First World KLEMS Conference was held at Harvard University in Cambridge, Massachusetts, on August 19-20, 2010. This resulted in the formation of a World KLEMS Initiative, involving more than forty countries around the world. Regional organizations in Asia and Latin America have now joined the European Union (EU) in supporting research on KLEMS data sets. Efforts are underway to extend the KLEMS

framework to important developing and transition economies. These include Argentina, Brazil, Chile, China, India, Indonesia, Mexico, Russia, Turkey, and Taiwan.

The Second World KLEMS Conference took place at Harvard on August 9-10, 2012. The purpose of the Conference was to discuss recent progress in the development of KLEMS data sets, as well as rapidly developing areas for new applications and extensions. The conference program and presentations are posted on the conference website:

<http://www.economics.harvard.edu/faculty/jorgenson/WorldKLEMS>

The Conference included parallel sessions on KLEMS data sets for countries participating in the regional initiatives – Asia KLEMS, EU KLEMS, and LA KLEMS – and for extensions and applications of these data sets. A detailed overview is provided by Marcel Timmer and is available at the conference website:

[http://www.economics.harvard.edu/faculty/jorgenson/files/0809\\_0900\\_TIMMER\\_9AM\\_worldklems2012\\_timmer\\_intro.pdf](http://www.economics.harvard.edu/faculty/jorgenson/files/0809_0900_TIMMER_9AM_worldklems2012_timmer_intro.pdf)

LA-KLEMS, the Latin American Chapter of the World-KLEMS Project, was initiated in December 2009 with a conference at ECLAC, the Economic Commission for Latin America and the Caribbean, in Santiago, Chile. LA-KLEMS is coordinated by ECLAC and includes seven research organizations in four leading Latin American countries – Argentina, Brazil, Chile, and Mexico. The initial results are summarized in the volume:

Cimoli, Mario, Andre Hofman, and Nanno Mulder, eds. 2010. *Innovation and Economic Development*, Northampton, MA: Edward Elgar.

Seven workshops have been held on the LA KLEMS project, most recently on December 10-11, 2012, at ECLAC in Santiago, Chile. In addition to Argentina, Brazil,

Chile, and Mexico, work on KLEMS data bases has been initiated in Columbia, Costa Rica, and Peru. More information about LA-KLEMS is available on the project website:

<http://www.cepal.org/cgi-bin/getprod.asp?xml=/la-klems/noticias/paginas/4/40294/P40294.xml&xsl=/la-klems/tpl-i/p18f-st.xsl&base=/la-klems/tpl-i/top-bottom.xsl>

Asia-KLEMS was initiated in December 2010 and the first Asia KLEMS Conference was held at the Asian Development Bank Institute in Tokyo in July 2011. A Data Management Workshop was held at Seoul National University in July 2012. The Asia-KLEMS Committee includes representatives of major Asian countries, including China, India, Japan, South Korea, and Singapore.

The second Asia KLEMS conference will be held at the Bank of Korea in Seoul on August 22-23, 2013. The conference will be jointly supported by the Bank of Korea, the Asian Development Bank, and the Korea Productivity Center. The program will be available on the Asia KLEMS website in the spring of 2013:

<http://asiaklems.net/>

Countries that are members of the Asia KLEMS Consortium will be invited to the conference. Travel costs of members of the Asia KLEMS Consortium, including economy-class air fare and accommodations, will be supported by a grant from the Asian Development Bank. Participants should file their data sets with the Asia KLEMS Secretariat for uploading to the Asia KLEMS website. These data sets should use the Excel format of the Asia KLEMS Growth and Productivity Accounts, Version 1.0 (draft and proposal), presented at the Data Management Workshop.

Updated data for Australia, Canada, Japan, Korea, and the U.S. – the original participants in the EU KLEMS study from outside the European Union – will be posted on the World KLEMS website:

<http://www.worldklems.net/>

As data become available from the Asia KLEMS and LA KLEMS projects, these data will also be posted on the World KLEMS website.

The World Input-Output Database (WIOD) has provided a very significant extension of KLEMS-type research by integrating industry-level data sets for the forty countries of the World KLEMS Initiative with data on international trade. This has produced a database that includes industry-level patterns of production and trade for all of the participating countries. The World Input-Output Database is a key resource for empirical research on international trade and the process of globalization.

A second extension of KLEMS research is the broadening of the concept of capital input to encompass intangible forms of investment, such as research and development and human capital. Another important direction relevant for resource-intensive economies is the incorporation of capital in the form of land and natural resources. The supply and demand for energy resources has emerged as a central issue in global environmental policy.

International comparisons of patterns of output, inputs, and productivity are very challenging, but have become crucial to growth strategy in an increasingly globalized world economy. This will assume even greater significance as policy-makers try to sustain the momentum of economic growth in the face of rapidly evolving patterns of international competitiveness. Research on international supply chains has established the need for integration of KLEMS-type data with information on trade.

At the Tokyo World KLEMS Conference extensions and applications will emphasize important issues for Asia. International supply chains are evolving rapidly in Asia and require detailed industry-level data. Investment in intangible forms of capital is assuming a greatly enhanced role in Asian economies. Finally, international level comparisons of output, inputs, and productivity at the industry level are essential in identifying barriers to sustained economic growth in Asian countries.

The Program Committee for the Tokyo World KLEMS Conference is:

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