

Asia and the World KLEMS Initiative

by

Dale W. Jorgenson

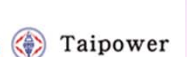
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The Third Asia KLEMS Conference

Structural Changes and Productivity Growth in Asian Countries

Taipei, Taiwan – August 12, 2015



The World Economy:

Growth or Stagnation?

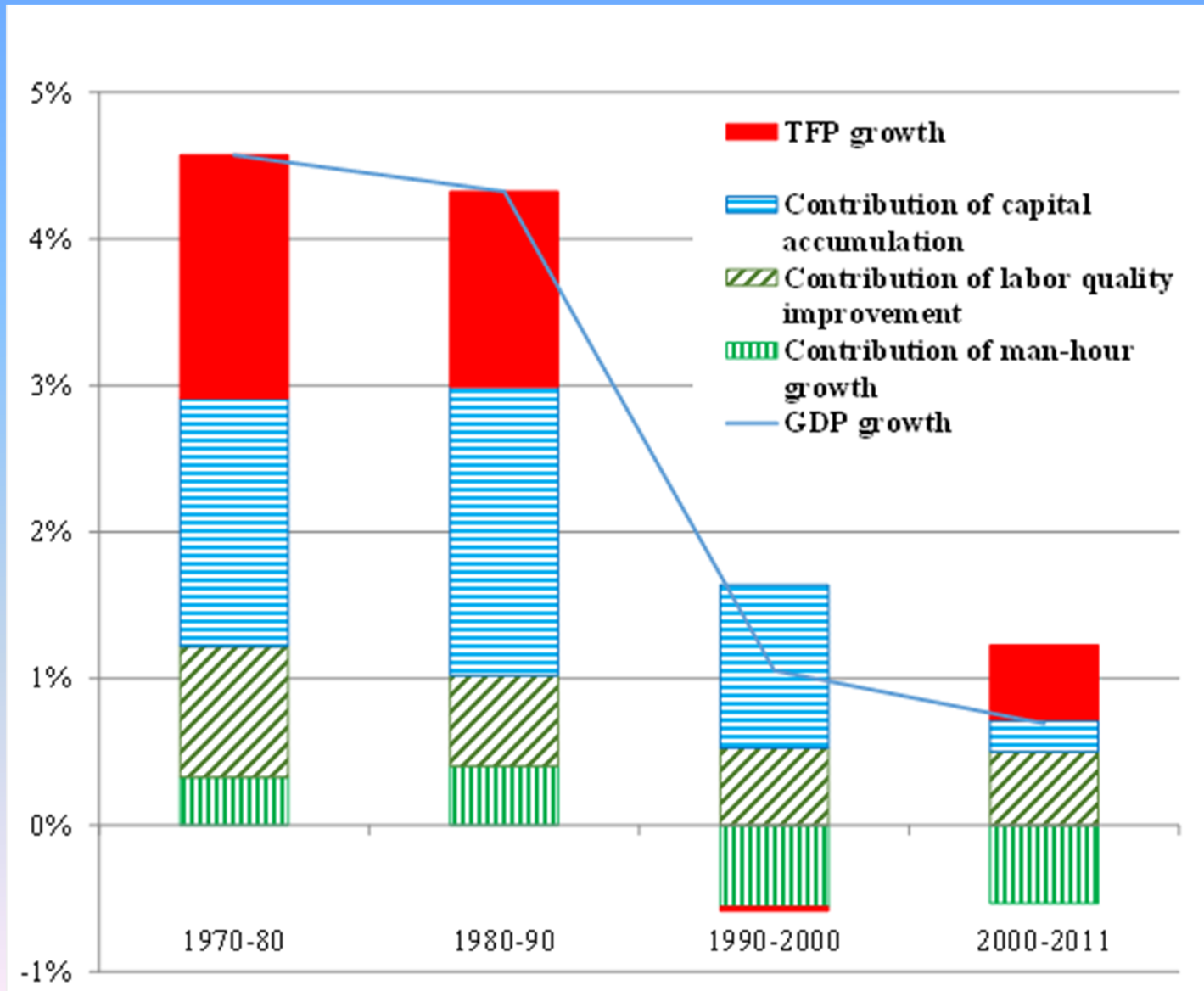
Dale W. Jorgenson

Kyoji Fukao

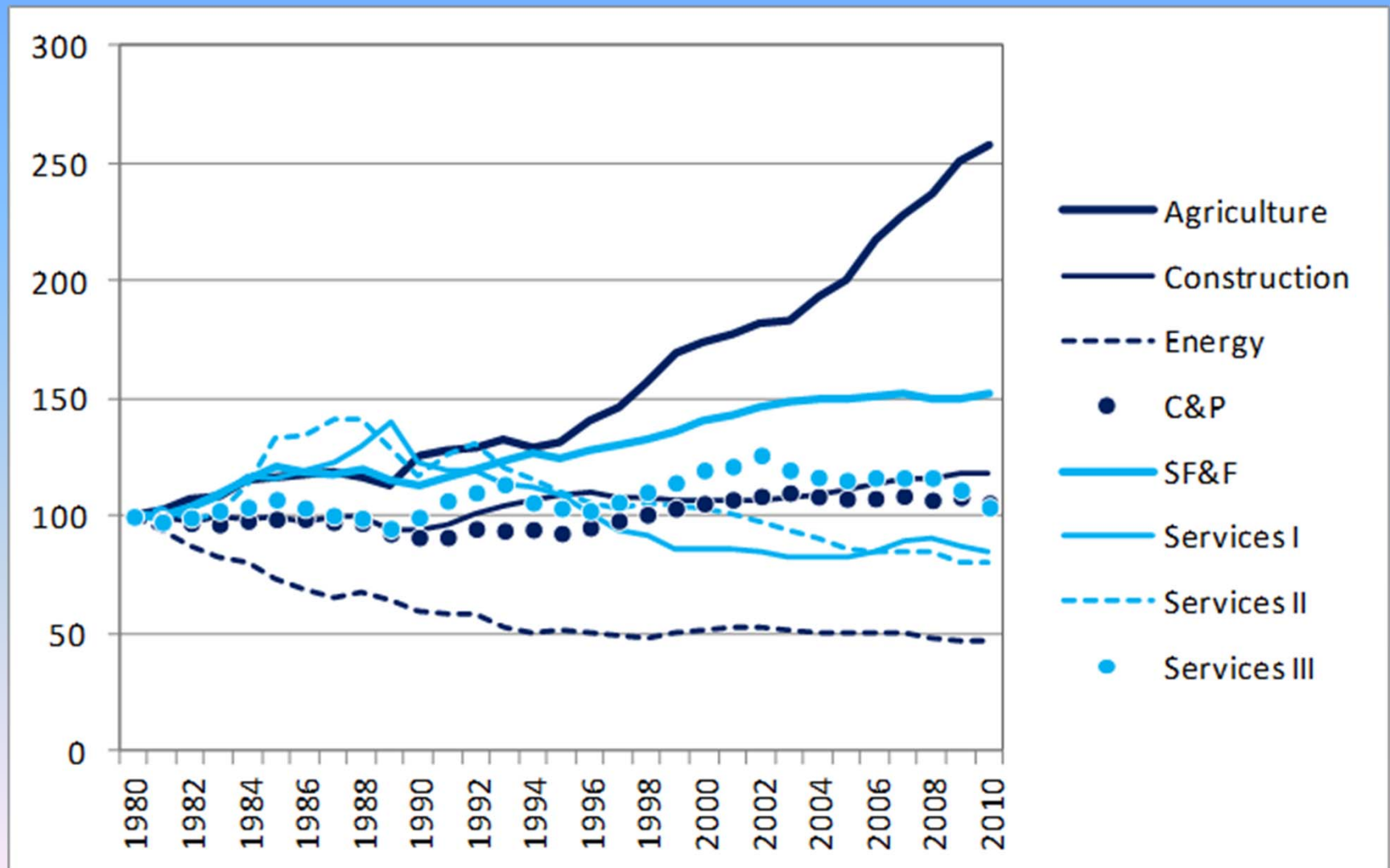
Marcel P. Timmer



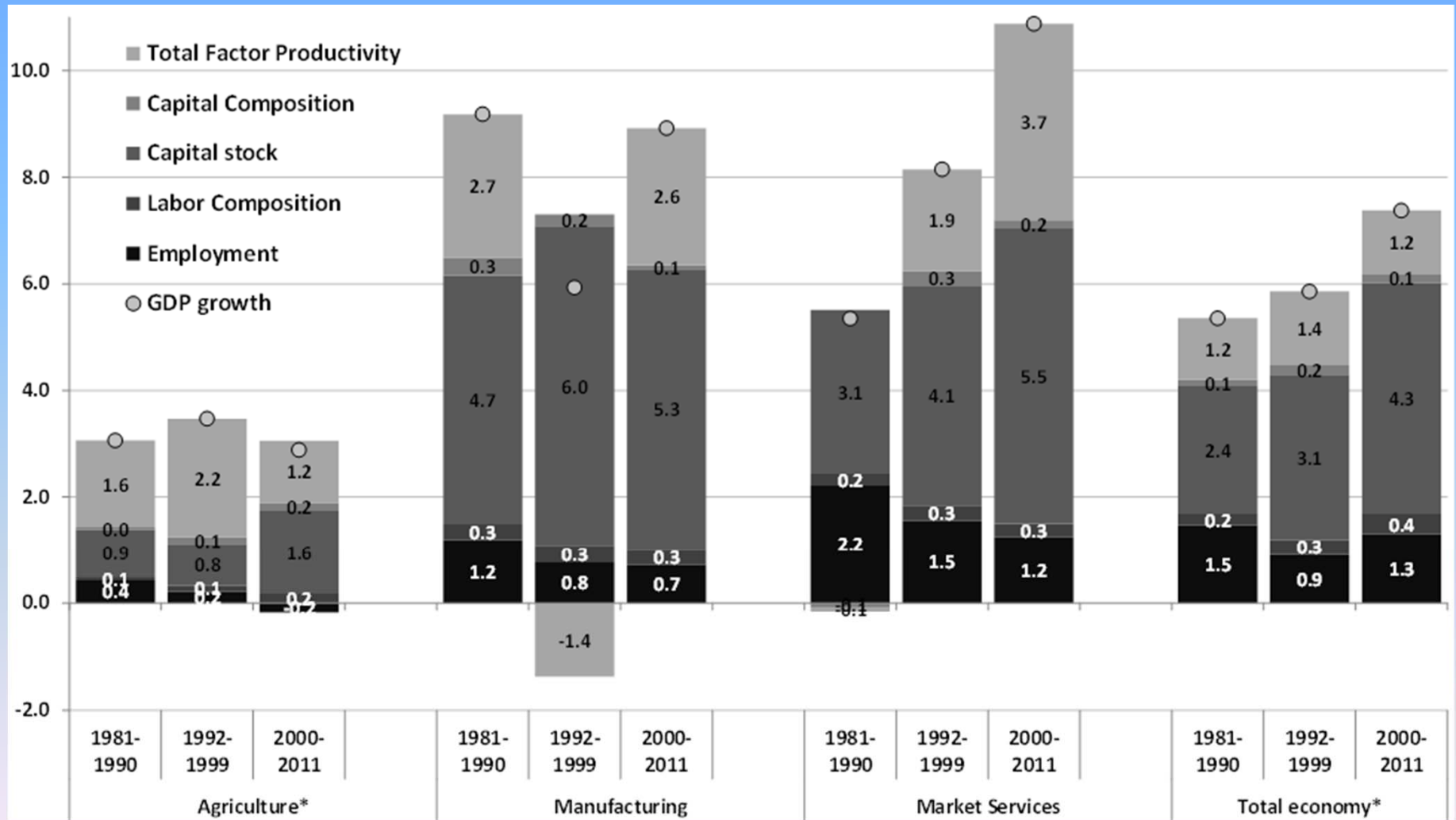
Chapter 3, Figure 5: Decomposition of Japan's GDP Growth (Annual Rate, %)



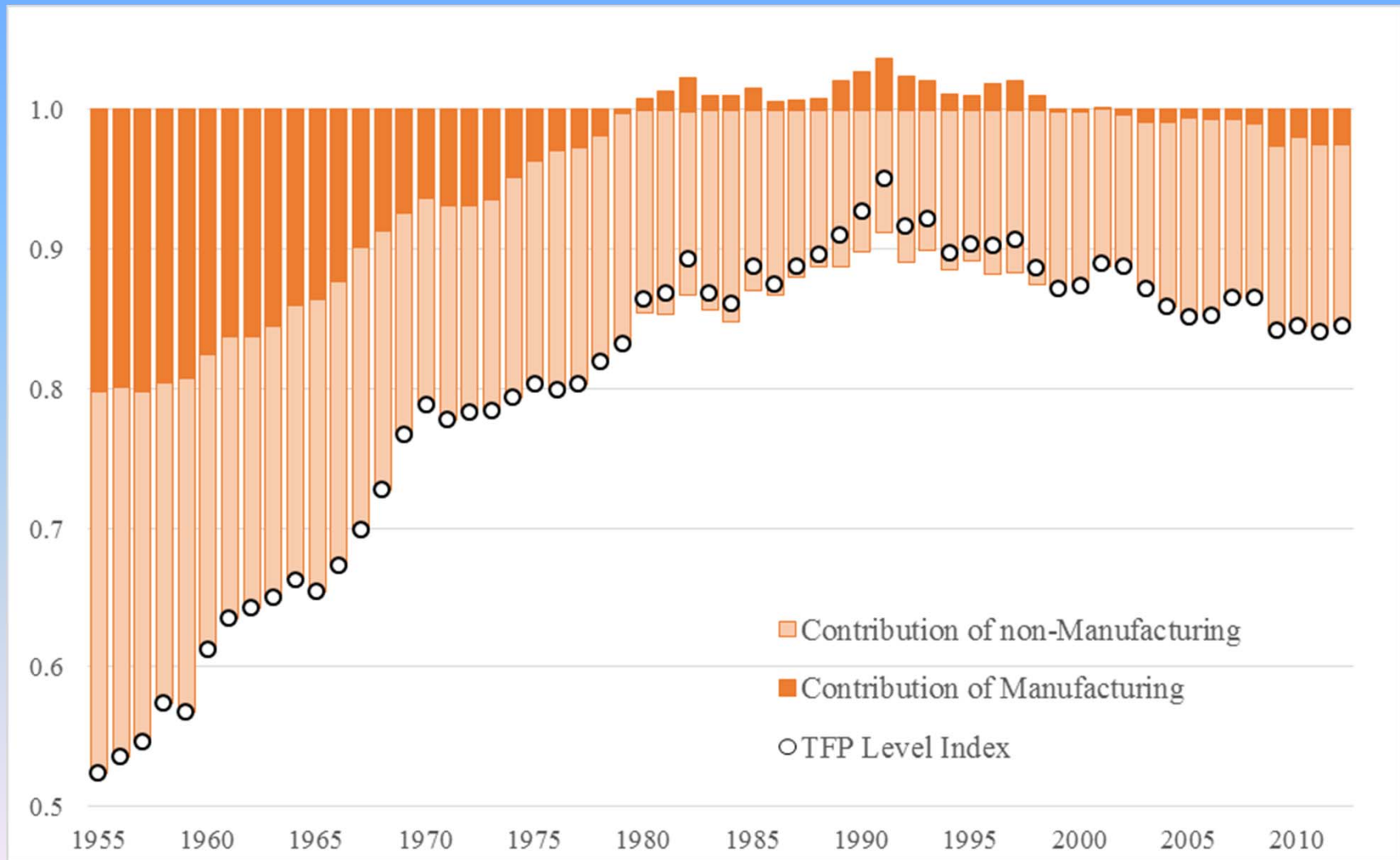
Chapter 6, Figure 1: Total Factor Productivity Index by Industry Group (1980 = 100)



Chapter 7, Figure 1: Contribution of factor inputs and Total Factor Productivity growth to GDP growth, 1980-2011

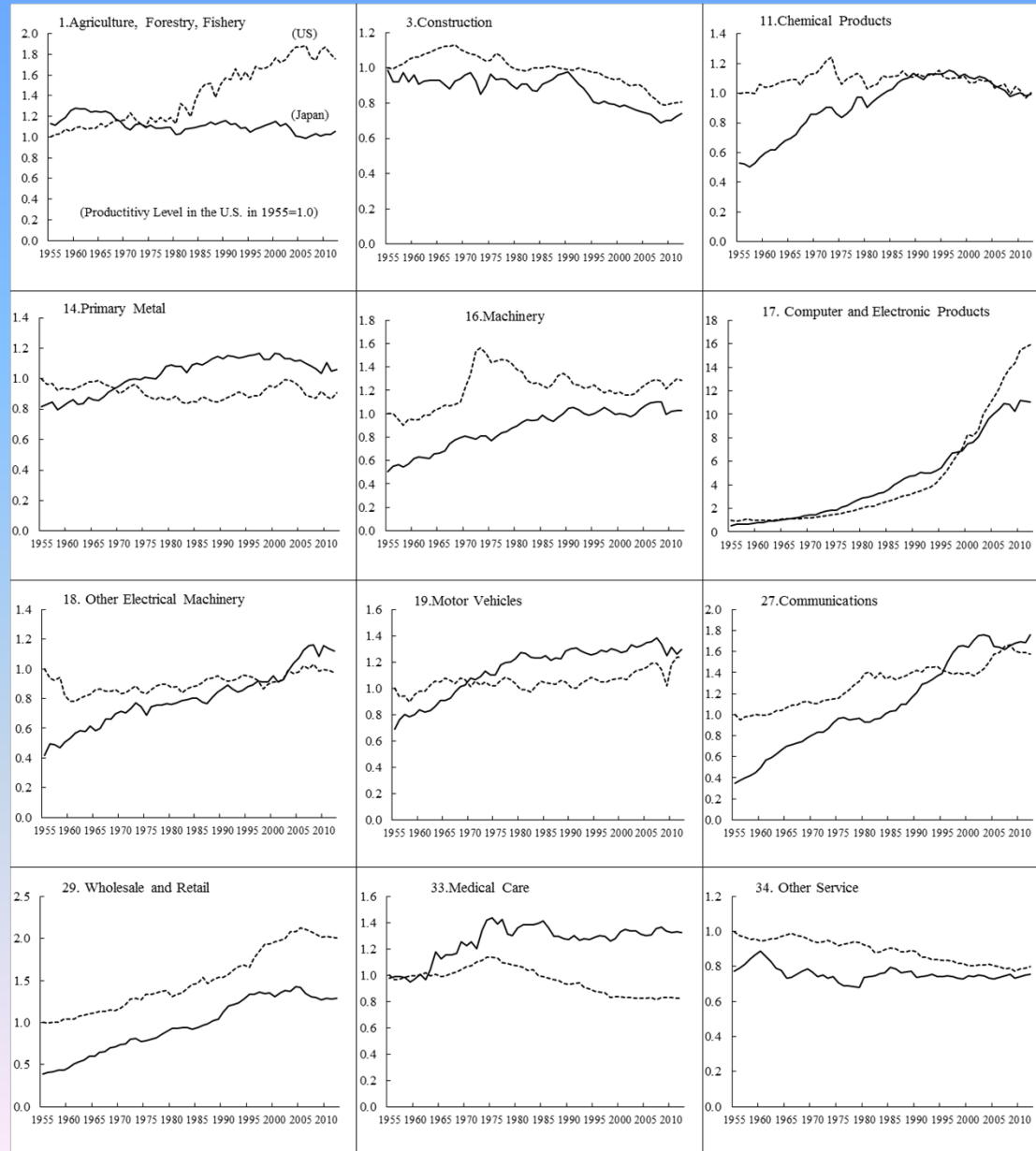


Chapter 13, Figure 6: TFP Gaps in Manufacturing and Non-Manufacturing during 1955–2012



Chapter 13, Figure 9:

TFP Level Indices in Selected Industries during 1955–2012



OVERVIEW OF THE WORLD KLEMS INITIATIVE

The Purpose of the World KLEMS Initiative Is to Incorporate KLEMS-Type Data Sets into Official Systems of National Accounts.

The Growth of Outputs, Inputs, and Productivity at the Industry Level Is Crucial for Understanding the Sources of Economic Growth and the Nature of Structural Change.

Level Comparisons among Countries Are Essential for Assessing Competitive Advantage.

MILESTONES IN THE WORLD KLEMS INITIATIVE

EU KLEMS: Completed June 2008. KLEMS Data Sets for 25 or 27 European Union (EU) Members Plus Australia, Canada, Japan, Korea, and the United States. See: <http://www.euklems.net/>

LA KLEMS: Established December 2009 at ECLAC/CEPAL, the Economic Commission for Latin America and the Caribbean, Santiago, Chile. See: <http://www.cepal.org/cgi-bin/getprod.asp?xml=/la-klems/noticias/paginas/4/40294/P40294.xml&xsl=/la-klems/tpl-i/p18fst.xsl&base=/la-klems/tpl-i/top-bottom.xsl>

World KLEMS Initiative: Established First World KLEMS Conference, Harvard University, August 2010. See: <http://www.csls.ca/ipm/24/IPM-24-Jorgenson.pdf>

Asia KLEMS: Established December 2010. First Asia KLEMS Conference, Asian Development Bank Institute, Tokyo, Japan, July 2011. See: <http://www.asiaklems.net/>

Second World KLEMS Conference: Harvard University, August 9-10, 2012. See: http://www.economics.harvard.edu/faculty/jorgenson/files/0809_0900_TIMMER_9AM_worldklems2012_timmer_intro.pdf

MILESTONES IN THE WORLD KLEMS INITIATIVE

(Continued)

Russia KLEMS: Laboratory for Research in Inflation and Growth, Higher School of Economics, Moscow, Russia. See: <http://www.hse.ru/en/org/hse/expert/lipier/ruklems>. Official Release, July 2013.

Mexico KLEMS: Instituto Nacional de Estadística y Geografía (INEGI), Sistema de Cuentas Nacionales de México: Productividad Total de los Factores, 1990-2011, Aguascalientes, México. See: <http://www.inegi.org.mx/inegi/contenidos/espanol/prensa/Boletines/Boletin/Comunicados/Especiales/2013/agosto/comunica9.pd>. Official Release, Instituto Tecnológico Autónomo de México (ITAM), México City, México, October 2013. See: http://www.inegi.org.mx/eventos/2013/contabilidad_mexico/presentacion.aspx.

Third World KLEMS Conference: Research Institute for Economy, Trade, and Industry (RIETI), Tokyo, Japan, May 19-20, 2014. See: <http://scholar.harvard.edu/jorgenson/world-klems>.

India KLEMS: Reserve Bank of India, Mumbai, See: <http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=785> . Official Release, July 2014

China KLEMS: China Industrial Productivity database, Research Institute for Economy, Trade, and Industry (RIETI), Tokyo, Japan. See: <http://www.rieti.go.jp/en/projects/program/pg-05/008.html>. Official Release, April 2015.

Current Status of Asia KLEMS

China KLEMS: China Industrial Productivity database, Research Institute for Economy, Trade, and Industry (RIETI), Tokyo, Japan. See: <http://www.rieti.go.jp/en/projects/program/pg-05/008.html>. Established at RIETI in 2014 in collaboration with the Institute for Economic Research, Hitotsubashi University. Complete documentation available on the RIETI website.

India KLEMS: Reserve Bank of India (RBI), Mumbai, See: <http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=785>. Complete documentation available on the RBI Website. See <https://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=785>

Japan KLEMS: Japan Industrial Productivity database, Research Institute for Economy, Trade, and Industry (RIETI), Tokyo, Japan. See: <http://www.rieti.go.jp/en/database/JIP2014/index.html>. Established at RIETI in 2005 in collaboration with Hitotsubashi University. Complete documentation available on the RIETI website.

Korea KLEMS: Korea Industrial Productivity database, Korea Productivity Center (KPC), Seoul, Korea. See: http://www.kpc.or.kr/eng/state/2011_kip.asp?c_menu=5&s_menu=5_4. Established at KPC in 2006. Complete documentation available on the Asia KLEMS website. See: http://asiaklems.net/data/pop_snn.asp.

Taiwan KLEMS: See: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=4&ved=0CDAQFjADahUKEwjEhM6ZuTGAhXKN4gKHfuFDV4&url=http%3A%2F%2Fscholar.harvard.edu%2Ffiles%2Fjorgenson%2Ffiles%2Fyihming_lin_3wklems_taiwan_r1.pptx&ei=Q2uqVYTXEcrvoAT7i7bwBQ&usg=AFQjCNGU2dZ1vttLEUXefR9qE7_9q44BYg&bvm=bv.98197061,d.aWw. Dataset available on the Asia KLEMS website. See: <http://asiaklems.net/data/customize.asp>.

AGENDA FOR WORLD KLEMS: GROWTH AND STRUCTURAL CHANGE

National Accounts. The Objective for the World KLEMS Initiative is to Incorporate Data on Growth and Productivity into the National Accounts. Ten Countries Provide KLEMS Data within National Accounts: Australia, Canada, Denmark, Finland, Italy, Mexico, The Netherlands, Sweden, the United Kingdom, and the United States.

Methodology is based on the **OECD Productivity Manual**, Paris, OECD, 2001: <http://www.oecd.org/std/productivity-stats/2352458.pdf> and the **OECD Capital Manual**, Second Edition, Paris, OECD, 2009: <http://www.oecd.org/std/productivity-stats/43734711.pdf>

Growth and Productivity Accounts are consistent with the United Nations, **System of National Accounts 2008**, Chapters 19 and 20: See: <http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf> .

THE AGENDA FOR WORLD KLEMS: INTERNATIONAL COMPETITIVENESS

Second Priority Is the Analysis of International Competitiveness. The Natural Framework for this is the World Input-Output Study (WIOD), Revised and Extended by OECD and World Trade Organization: <http://www.wiod.org/index.htm>.

KLEMS-Type Data Sets Can Be Linked by Industry-Level Purchasing Power Parities and Trade Data as Shown by Inklaar and Timmer (2014): <http://onlinelibrary.wiley.com/doi/10.1111/roiw.12012/abstract>.

The WIOD Data Can Be Used to Implement the Value Added Approach to Trade: Marcel P. Timmer, Bart Los, Robert Stehrer, and Gaaitzen de Vries (2012), "Fragmentation, Incomes, and Jobs. An Analysis of European Competitiveness," Working Paper No. 9, Groningen Growth and Development Centre. See: <http://www.wiod.org/publications/papers/wiod9.pdf>

Challenge Remaining Is to Link Data Sets for Capital and Labor Inputs, Using the Methodology of Jorgenson, Nomura, and Samuels: Dale W. Jorgenson, Koji Nomura, and Jon D. Samuels (2015), "A Half-Century of Trans-Pacific Competition: Price level indices and productivity gaps for Japanese and U.S. industries, 1955-2012." RIETI Discussion Paper Series, 15-E-054, Research Institute for Economy, Trade and Industry, Tokyo, May.

See: <http://www.rieti.go.jp/jp/publications/dp/15e054.pdf>