

Contact: Catherine L. Mann (703) 395-5142

October 5, 2006

## ACCELERATING THE GLOBALIZATION OF AMERICA: THE ROLE FOR INFORMATION TECHNOLOGY

Washington—Globalization of the information technology (IT) industry accelerates the adoption and diffusion of IT throughout the US economy. This has important implications for productivity growth, labor-market adjustment, and US technological leadership.

*Accelerating the Globalization of America: The Role for Information Technology*, by Senior Fellow Catherine L. Mann, assisted by Research Associate Jacob Funk Kirkegaard, addresses the offshoring of white-collar jobs, the trade deficit in technology products, the competitiveness of US manufacturing and services, and threats to US innovation and technology leadership.

Innovation and globalization go hand-in-hand. They increase productivity growth, which supports the “trifecta” of faster GDP growth, lower inflation, and higher-wage employment. US technological innovation, global engagement of the US IT companies, and policy reforms in foreign economies together reduce prices of these products—IT hardware, software, and services alike—and thus promote greater adoption and diffusion of IT throughout the United States. Non-IT parts of the economy that use IT extensively, particularly services such as finance and distribution, are leaders in driving the productivity growth of the whole economy and are leading net exporters. Other parts of the economy, such as health management and small and medium-sized businesses, have lagged and thus offer new opportunities.

Beyond investing in IT, the subsequent transformation of business processes and workplace practices throughout the economy generates the productivity growth that the US economy continues to enjoy. But this innovation and its diffusion and application,

while the foundation for productivity growth, are also a source of disruptive change. As more sectors take up IT, including nontechnology service activities, the requirement for labor-market adjustment is felt more widely throughout the labor force. Those whose skills are adaptable, and extendable to new areas of analysis and integration across sectors, are gaining in terms of employment and wage growth. Those whose skills can be replicated by technology are doing far worse. Hence globalization and technological change together are likely widening the distribution of labor-market outcomes.

These demands for labor adjustment are as unprecedented as the productivity growth the United States enjoys and are likely to increase. Failing to engage all resources implies forgoing some of the potential of the economy. Therefore, maximizing the gains from globalized technological change requires making those innovations more widely obtainable and more completely shared by members of society. Urgent policy attention is demanded by the faster pace and economywide scope of technological change and globalization.

This book consolidates and analyzes these observations under one rubric—how the globalization of the IT sector is accelerating the overall globalization of America. What domestic policies are needed to promote innovation and globalization, facilitate adjustment so that resources remain fully employed, and thereby ensure that the benefits of both globalization and technological change are widely shared?

A proactive agenda must meet three challenges: a domestic transformation challenge, a global challenge, and an innovation challenge.

**The Transformation Challenge.** As a consequence of both faster technological change and deeper global engagement, a wider range of US businesses and workers face global competition and enjoy global opportunities. This raises the stakes for both incumbents and new workers. Workforce preparation and participation require a new policy-business-education compact. Innovative proemployment policies, such as *wage insurance* paid to individual workers, facilitates the switch to jobs with advancement possibilities for those whose entire job category disappears through technological change and global forces. A human capital investment tax credit, engaged through firms for their incumbent workers, promotes skill-extension for those whose specific skills have depreciated in the face of technological change.

**The Global Challenge.** The process of diffusing IT throughout the economy is well underway in the United States but has proceeded more slowly if at all abroad. Business transformation via IT, and particularly the role for services that are IT intensive such as finance, distribution, and telecommunications, has been limited in many countries by the domestic environment, closed markets, and regulations. *Active pursuit of market-opening negotiations for US services in markets abroad* will improve both foreign and US growth prospects. Broad-based, “*negative-list*” opening of services in the free trade agreements negotiated by the United States is superior to the “positive-list” strategy of the Doha Round. But the broader set of countries engaged in Doha calls for higher attention to services in that multilateral context. A *focus on trade facilitation*, the one “Singapore issue” that remains, represents one avenue in the Doha Round for greater attention to services.

**The Innovation Challenge.** Innovation to serve discriminating domestic customers can come from global teams but has to have a home base. To maintain technological leadership—and the pipeline of new products, services, and ideas that meet the known (and unknown) needs of US businesses, consumers, and government—the United States needs to keep the engine of innovation stoked. Quantitative and cognitive skills consistent with *science and engineering education* are in short supply and in increasingly higher demand. More creative approaches to *degree, certification, and internship programs* are needed and can come under the rubric of the human capital investment tax credit. *Public funding of technology research* has stagnated. *The university-business-public consortia for research and education* need fertilization.

### **About the Authors**

**Catherine L. Mann** has been a senior fellow at the Institute since 1997. She served as assistant director of the International Finance Division at the Federal Reserve Board of Governors, senior international economist on the President’s Council of Economic Advisers at the White House, and adviser to the chief economist at the World Bank. She directed the Ford Foundation-funded project Latin-Asian Dialogue to support collaborative research comparing Asian and Latin American countries on how technology affects

entrepreneurship, government, education and skills, and financial intermediation. She has also engaged in projects on technology and policy in China, Thailand, Vietnam, Taiwan, Sri Lanka, Mexico, Morocco, Tunisia, South Africa, Australia, Canada, Finland, Germany, and New Zealand. She is the author or coauthor of *APEC and the New Economy* (2002), *Global Electronic Commerce: A Policy Primer* (2000), and *Is the US Trade Deficit Sustainable?* (1999).

**Jacob Funk Kirkegaard** has been a research associate at the Institute since 2002. Before joining the Institute, he worked with the Danish Ministry of Defense, the United Nations in Iraq, and in the private financial sector. He is a graduate of the Danish Army's Special School of Intelligence and Linguistics with the rank of first lieutenant; the University of Aarhus in Aarhus, Denmark; and Columbia University in New York. He is the coauthor with Martin Baily of *Transforming the European Economy* (2004).

## **About the Institute**

The Institute for International Economics, whose director is C. Fred Bergsten, is the only major research center in the United States that is devoted to global economic policy issues. Its staff of about 50 focus on macroeconomic topics, international money and finance, trade and related social issues, and international investment, and cover all key regions—especially Europe, Asia, and Latin America. The Institute averages one or more publications per month; holds one or more meetings, seminars, or conferences almost every week; and is widely tapped over its popular Web site.

*Accelerating the Globalization of America: The Role for Information Technology*

Catherine L. Mann, with Jacob Funk Kirkegaard

ISBN paper 0-88132-390-X

June 2006 • 256 pp. • \$26.95