CHINA’S INNOVATION POLICY IS A WAKE-UP CALL FOR AMERICA, NOT A THREAT

by Dieter Ernst

HONOLULU (March 11, 2011) -- As China’s government prepares to issue its next five-year economic plan on Tuesday, one of the issues that the U.S. and other countries are watching most closely is what the plan says about China’s innovation policies.

Only a few years ago, China’s approach to innovation hardly played a role in international economic diplomacy. Today, China’s innovation policy and its perceived threat to America’s economy are a hot topic in U.S.-China economic relations, adding further to contentious disputes about exchange rates, trade and foreign direct investment.

When Chinese President Hu Jintao visited the U.S. in January, public debates focused on widespread fears that China’s emerging role in hi-tech innovation will challenge American leadership in the global knowledge economy. Among the concerns expressed are that China’s innovation policy unfairly favors domestic producers and poses a threat to global intellectual property protections; that it is used as a trade-distorting ploy against U.S. exports; and that it forces U.S. companies to offshore good jobs in engineering, product development and research. A recent report by the U.S. Chamber of Commerce claims that China’s innovation policy is “a blueprint for technology theft on a scale the world has never seen before.”

How serious of a challenge does China’s innovation push really pose for America? Based on research on China’s evolving innovation capacity, I would argue strongly against exaggerated fears, which are sometimes played up for political purposes. Instead, China’s rise should serve as a wake-up call that we need to bring our own house in order.

China’s speed in catching up in innovation has been truly impressive. Since 2000, research & development spending has increased roughly 10 percent each year—a pace the country maintained even during the 2008-09 recession.

China’s share in global R&D spending has increased from 9.1 percent in 2008 to 12.3 percent in 2010, while the U.S. share has declined from 35.4 percent to 34.4 percent. This year, China’s share is projected to grow further to 12.9 percent, overtaking Japan as the second largest R&D investor. And China’s share in the global pool of researchers has increased from less than 14 percent in 2002 to more than 20 percent today.

In addition, China’s share in science and technology publications has rapidly expanded in critical areas like nanotechnology and life sciences, as have patent applications by Chinese residents both at home and internationally. These data show that China has become a serious competitor, not only on price but also on technology.

There is no doubt, however, that barriers to innovation remain substantial, ranging from severe quality problems in education to plagiarism in science, and barriers to entrepreneurship and private R&D investment. A comparison with U.S. indicators demonstrates that China still has a long way to go to close the innovation gap.

In short, the U.S. retains a strong lead in overall innovative capacity, and Chinese firms will continue to need access to American technology across a broad spectrum of industries and services. China’s innovation push can thus create new markets for American firms, provided they stay ahead on the innovation curve.

Both the U.S. and China share a fundamental objective – they seek to enhance international competitiveness in the dramatically altered post-crisis environment. Both governments see innovation as the necessary catalyst for a sustainable recovery that will last beyond short-term stimulus packages. For China’s government, strengthening domestic innovative capacity is the key to a transformation of its economy beyond the export-oriented “global factory” model.

The defining characteristic of China’s innovation policy is a focus on “indigenous innovation” to redress its weak record of firm-level innovation in technologies that address China’s fundamental development needs. Specifically, the plan calls for utilizing science and technology to lead future economic growth, especially in energy, water and resource utilization, environment protection, and public health. The plan also calls for ‘leapfrogging’ to research frontiers in key scientific disciplines, such biotechnology and nanotechnology.

China’s effort to strengthen its innovation capacity should not come as a surprise. It is part and parcel of intensified technology-centered competition on a global scale. Like the U.S., China has no choice but to participate in a global “innovation arms race” in which no country dares to fall behind the others in the creation new products and processes.

Furthermore, innovation policy nearly everywhere has been tarred with a protectionist brush, as demonstrated by persistent trade conflicts between the U.S. and the EU in such industries as telecommunications, aerospace, defense and life science. What distinguishes China is that the implementation of its innovation policy is still shaped by the legacy of the centrally planned economy.

An analysis of China’s recent policy initiatives and its response to foreign complaints shows signs of gradual, if uneven, progress toward greater pragmatism and less market regulation. While technology-related trade conflicts will continue, it may now be possible to transform technology-centered competition between both countries into a positive-sum game that benefits both sides.
However, this requires that policies go beyond trade conflicts and address long-term strategic issues. To take advantage of the opportunities offered by China’s innovation push, the U.S. government and private sector need to join forces to develop a national strategy that will enhance innovative capacity and create quality jobs in research, product development and engineering.

Dieter Ernst is a Senior Research Fellow in Economics at the East-West Center in Honolulu. He can be reached at ErnstD@EastWestCenter.org. Dr. Ernst will further explore the subject of this commentary in a forthcoming AsiaPacific Issues policy brief.

###

The EAST-WEST CENTER promotes better relations and understanding among the people and nations of the United States, Asia, and the Pacific through cooperative study, research, and dialogue. Established by the U.S. Congress in 1960, the Center serves as a resource for information and analysis on critical issues of common concern, bringing people together to exchange views, build expertise, and develop policy options.

Click here for daily news on the Pacific Islands.

Click here for links to all East-West Center media programs, fellowships and services.

Connect with the East-West Center on Facebook.