

The Direction of China's Trade and Industrial Policies

Testimony of

Alan Wm. Wolff

Co-chair, International Trade Practice, Dewey & LeBoeuf
Professor, Monterey Institute of International Studies
Chair, Committee on Comparative Innovation Policies,
National Academies

Before the

House Ways and Means Committee

U.S. House of Representatives

Washington, D.C.
June 16, 2010

Mr. Chairman, Members of the Committee. It is a pleasure to be back before this Committee. This is a very important subject, and I appreciate the opportunity to testify.

Trade and industrial policies are intimately linked. Very often restrictions are placed on imports to assist the development of a domestic industry. Whether they are or not, industrial policy will change trade patterns as the promotion of new industries and competitors causes them to emerge and begin to export in quantity. The combination of trade measures and industrial policy often results in the creation of excess capacity. We know all too well that free markets overshoot, consumers and producers are overconfident and then lack confidence, sometimes with very wide swings in what we call the business cycle. Government intervention in the name of industrial policy can create even greater distortions, but concentrated by sector. The effects can be dramatic and harmful to the economies of trading partners of the countries engaging heavily in industrial policy.

The promotion of industry in general can also be very positive, depending on the nature of the measures used and the degree of government intervention. We applaud an emphasis on math, engineering and science in education, hoping that this results in innovation. For some of the same reasons, government backing of university R&D is welcomed. We support protection of intellectual property, which is another form of government intervention in the market. These measures are considered broadly beneficial to society, and we favor these policies at home and abroad. We are relatively tolerant of locational subsidies. If a state wishes to attract industry and gives tax holidays, that is acceptable here and accepted when practiced abroad. But at some point the greater the interventions, the more market-distorting, the measures become unacceptable to a country's trading partners.

Whenever a major new economic power appears in world trade, there are dislocations. This was true of the United States flooding England with low-priced grain in the mid-nineteenth century, was true of the formation of the Common market and the rise of industrial Japan in the last third of the 20th century in terms of their impact respectively, and is true of China's emergence as the world's largest exporting country, a country with an enormous and growing trade surplus, which has averaged over \$200 billion a year from 2005 to 2009.¹ Changes in trade patterns were bound to occur and be particularly dramatic as the effects of adding an enormous workforce brought to bear on international competition in a world in which communications have become instantaneous and transportation has ceased to be as important a barrier.

When the sectoral effects of industrial policies that distort trade are added, the promotional measures of any major trading nation deserve serious attention.

The United States and the other trading nations welcomed China's entry into the WTO. But it needs to be remembered that WTO rules are not domestic law for any

¹ China's current account surplus reached over \$400 billion in 2008, almost 10% of GDP (Figure 1). There is no reason to assume that the recession will change the trend.

member, nor do they cover all national measures. The functioning of an open world trading system depends ultimately on the conduct of each WTO member, and China being the largest exporter, and third largest importer in the world, its performance is of the highest importance. The question posed by the Committee in this hearing is exactly the right one: Is the direction of Chinese trade and industrial policies changing? There are signs that this is occurring.

We are familiar in the relatively recent past with another example of state developmental capitalism. Japan intervened in many of its industries through the use of some or all of the following measures: the granting of subsidies, affording home market protection, awarding preferential procurement contracts, employing national (as opposed to international) standards, coordinating the efforts of its producers, and removing the threat of anti-trust (competition law) enforcement. The result was often the substantial misallocation of resources at home, the build up of over-capacity, and the likelihood of extensive dumping abroad with consequent injury to foreign producers and their workers. With Japan, this occurred most notably with color televisions, semiconductors and steel. In the case of color televisions, the U.S. response was too little and too late and the industry was lost². In the case of semiconductors, large-scale market intervention brought about a vast overproduction of computer memory chips (DRAMs) in Japan in the 1980s, but the U.S. trade and domestic policy responses were ultimately also extensive and the U.S. industry was saved³. The largest producer of DRAMs in Japan today is Micron Technologies, a company from Boise Idaho. With steel, the final chapter has not been written. The problem was global and not just caused solely by Japan; although Japan was a leader in distorting world trade patterns to the serious detriment of the U.S. industry⁴.

Japanese automobile producers developed within a tightly sealed home market and built very substantial export capability. The ultimate U.S. response was blunt -- threatened U.S. import quota legislation. As a result, the largest Japanese auto companies

² The color TV antidumping case was Treasury's swan-song in trade remedy administration. The attempt to assess duties was seriously flawed. There was a safeguard relief imposing quotas for a time, but the industry could not be saved.

³ The response to the semiconductor problem of very restricted access to the Japanese market and dumping in all markets was to enter into an agreement under which Japanese procurement of foreign semiconductors would rise above the level that could be accounted for by purchases by the large Japanese vertically integrated electronics companies that were also the major Japanese producers of semiconductors (with a goal set of at least 20% foreign procurement) and requiring an absence of sales below cost in any market, with monitoring mechanisms to assure compliance. This was combined with renewal of the generally available R & D tax credit, revision of the antitrust laws applicable to joint research, formation of SEMATECH (the Semiconductor Technology Manufacturing Initiative) and the Semiconductor Research Corporation (SRC, which gave grants to fund university research). No incidentally the U.S.-Japan Semiconductor Agreement did not benefit the U.S. industry alone, the European industry benefited as did the nascent industries of Taiwan and South Korea. Japan's measures are described in *The Microelectronics Race: The Impact Of Government Policy On International Competition, Government Intervention And Steel's Structural Crisis*; Westview Press, 1988.

⁴ For a description of Japan's extensive role in a system of domestic and international cartels, see *Steel and the State*, Westview Press, 1988.

made substantial investments in transplant production in the United States. An equilibrium was reached. A Japanese producer, Toyota, has the largest market share in the United States. A regrettable but unavoidable conclusion is that actual and threatened trade measures used to counter industrial policy brought about a more market-based result.

China, although having an even more overt role in controlling its economy through State-owned enterprises (SOEs) and a plethora of restrictions on trade and investment, decided on a different path to economic development than Japan took. The Japanese government had for decades prevented inward foreign direct investment. While still strongly supporting domestic champions, in 1978 Deng Xiaoping decided to open the Chinese market both to foreign investment and trade. Foreign investment was to be a source both of capital and innovative technologies. With respect to trade, a bilateral trade agreement was entered into between the United States and China in 1979 substantially reducing tariffs. This spurred greater foreign investment which entered China in ever increasing amounts annually. The companies making the investments used China as an export platform in many cases, but probably all aspired to serve the prospectively huge domestic Chinese market. In 2001 China joined the WTO. In doing so, China made a much more extensive number of specific market liberalizing commitments than had ever been made by any acceding member⁵, and began to transform its economy. Foreign investment continued to pour in, and trade expanded greatly – as did China’s trade surplus, which grew increased from \$23 billion the year China joined the WTO to almost \$300 billion by 2008⁶.

Chinese industrial policies have produced immense amounts of overcapacity in a number of industries at present, even though China has a vastly larger home market than did Japan.

- The increase in China’s steelmaking capacity in the last few years is enough to satisfy all demand for steel in either the United States or the European Union. -- For one high end steel product -- oil country tubular goods (OCTG) -- the ratio of domestic capacity to domestic demand is over 40 to 1.
- In 2008, China became the largest producer of solar panels in the world, shipping roughly one-third of worldwide total PV cell shipments. Domestic Chinese demand accounts for only a miniscule portion of China's production.
- Chinese government officials have expressed concern about overcapacity in the production of wind energy generating equipment.

⁵ See Annex A.

⁶ The trade surplus for May, 2010, totaled \$19.5 billion. China's trade surplus for 2009 was \$196 billion, falling 34% from the 2008 level of about \$296 billion. The U.S. goods trade deficit with China was \$268 billion in 2008.

- One estimate is that China will have excess capacity of 3 million automobiles per year by 2012.⁷

The series of sectors that China has targeted for special development efforts, key projects outlined in the Medium and Long-Term Science and Technology Program⁸, 2006-2020, is very impressive:

- core electronic components;
- general and basic semiconductors and the technology for manufacturing extremely large integrated circuits;
- high-end software;
- new-generation broadband wireless mobile telecommunications;
- high-end numerical controlled machine tools and basic manufacturing technology;
- large nuclear power plants with advanced pressurized water reactors;
- high-temperature gas-cooled reactors;
- equipment for control and treatment of pollution in water bodies;
- nurture of new genetically modified biological species;
- development of important new drugs;
- large aircraft;
- high-resolution earth observing systems; and
- technologies useful for both military and civilian sectors and defense technology.

This is one good indication of where China's resources are being channeled. But it is obviously not an exclusive list. As we have seen, China has made major strides in the manufacture and installation of high speed rail as well. And it would be very surprising if we did not see a large number of automobiles from China for sale in the U.S. market within a few years.

The fact that there is a national marshalling of resources to attain major commercial progress in the listed projects does not necessarily mean that there will be excess capacity in each. But even if there were no excess supply that would need to be exported, China's attaining a large degree of self-sufficiency in supplying its own market in major product areas would be at odds with the aspirations of its trading partners and very notably would frustrate the central trade objective of the Obama Administration -- doubling U.S. exports in five years. Attaining that Administration goal or even moving very far in that direction will require substantial participation by all of the world's largest markets, including China. But China's goal of increasing self-sufficiency in many sectors has to mean loss of current and potential markets for its trading partners.

⁷ An estimated 23 million units compared with expected demand of 20 million units. KPMG International, *Issues Monitor*, April 2010. China is now the largest market for motor vehicles as well as the world's largest provider (figures 2 and 3).

⁸ State Council of the People's Republic of China, *Outline of the National Medium-and Long-Term Program on Scientific and Technological Development (2006-2020)*, Feb. 9, 2006.

Taking just one example, for semiconductors, China's Ministry of Information Industry has indicated an objective of significantly increasing its “self-sufficiency ratio”:

[We will] significantly increase the self-sufficiency ratio to over 70 percent for integrated circuits used for information and national defense security, and to over 30 percent for integrated circuits used in communications and digital household appliances.... . . . We should basically achieve self-sufficiency in the supply of key products.⁹

In conversations with U.S. industry executives, Chinese officials stated a goal of 85% self sufficiency by 2015. It is likely that a goal of that magnitude will not be achieved, and if it were, the harm to China’s development of downstream industries would likely be severe, as competitiveness of information and communications (ITC) products depends on access to the best and latest chips from any source anywhere in the world, at competitive prices.

Chinese Measures of Concern

a. The National Indigenous Innovation Policy (NIIP)

The government shall establish a priority procurement policy for important high-tech equipment and products developed by domestic enterprises with independent intellectual property.

[We shall] provide policy support to enterprises purchasing domestic high-tech equipment.

State Council of the People’s Republic of China,
Outline of the National Medium-and Long-Term Program
on Scientific and Technological Development (2006-2020)

Former Ways and Means Committee Chairman Sam Gibbons used to say about trade problems that “they do not arrive without any warning. You do not wake up one morning and look out the window and find that there is a glacier in your backyard.” The policy of emphasizing “indigenous innovation” -- that is having products made with Chinese-origin technology owned by Chinese companies -- has been in the making for a number of years. It only threatened to become officially operational relatively recently with the publication of procurement regulations favoring indigenous innovation products.

On November 15, 2009, China’s Ministry of Science and Technology, the National Development and Reform Commission and the Ministry of Finance issued a joint circular providing for the accreditation of national “Indigenous Innovation Products.” The scope of the requirement includes the following: “computing and application hardware, telecommunications hardware, modern office equipment, software,

⁹ Ministry of Information Industry, August 29, 2006.

new energy and equipment and highly efficient energy-saving products.¹⁰ The effect of the catalogue thus created would have denied access to procurement by government agencies of products made by foreign companies selling in the Chinese market, even if they produced product that was 100% local content -- if the technology used did not originate in China (that is, the technology is owned by the Chinese subsidiary of the MNC). At the recent meeting of the Strategic and Economic Dialogue at the end of May, China did not agree to a U.S. request to suspend its indigenous innovation policy “but did agree to provide additional time for U.S. industry and government comments on how it could achieve its goal of promoting innovation in China without discriminating against foreign companies”¹¹. No global company’s complex portfolio of technologies is 100% sourced in any one country, and least likely to be sourced solely in China as there is a strong concern in China over China’s protection of intellectual property. The NIIP would therefore have excluded foreign companies from selling to government agencies. More importantly, although procurement by state-owned enterprises was not officially covered by the discriminatory accreditation measure, in practice, procurement by state-owned enterprises would likely conform to the NIIP.

b. State-owned enterprises (SOEs)

As noted earlier, China made very substantial commitments as part of its accession to the WTO. Many of these obligations are recorded in the WTO’s Working Party Report on China’s Accession. These commitments are considered binding and enforceable through WTO dispute settlement. Among the most important of the commitments is the statement by the representative of the Government of China that China would ensure that all state-owned and state-invested enterprises would make purchases and sales based solely on commercial considerations, e.g. price, quality, marketability and availability, and that the enterprises of other WTO Members would have an adequate opportunity to compete for sales to and purchases from these enterprises on non-discriminatory terms and conditions. In addition, the Government of China would not influence, directly or indirectly, commercial decisions on the part of state-owned or state-invested enterprises, including on the quantity, value or country of origin of any goods purchased or sold, except in a manner consistent with the WTO Agreement.¹²

In sectors where state-owned enterprises are dominant, such as provision of communications services or electric power, the purchasing behavior of SOEs is the determinative factor in whether the market is functioning or not. Foreign firms complain of discrimination generally at the hands of SOEs.

¹⁰ MOST Notice Regarding the Launch of the National Indigenous Innovation Product Accreditation Work for 2010 (draft for comment), April 10, 2010.

¹¹ Report on the Remarks of Francisco Sanchez, Undersecretary of International Trade, at WITA, as reported in Inside US Trade, June 4, 2010.

¹² Paragraph 46, Report of the Working Party on the Accession of China, **WT/MIN(01)/3**, 10 November 2001.

c. *Standards*

[We shall] actively promote the formulation and implementation of technical standards with self-owned intellectual property rights and translate that technological advantage into a marketplace advantage to maximize the benefits of intellectual property rights.

Shanghai Municipal Government,
September 14, 2004.

Throughout the field of information and communications technology products, China has promulgated national standards that are different from those applied internationally. The WTO Agreement on Technical Barriers to Trade (TBT) imposes the following requirement:

2.2 Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade.

The creation and application of a large number of national standards in China, as opposed to use of existing international standards, raises serious questions of WTO compliance. There is a clear market effects as well. A recent example was the delayed roll-out of a national standard (TD-SCDMA) for 3G phones, a delay and a standard that favored domestic producers.

One example that has been the subject of an industry study is that of trusted computing¹³. "Trusted computing" is a security system designed to allow verification that only authorized code runs on a system. China is pursuing a strategy to develop a set of closed, national standards for trusted computing in order to enforce a set of government encryption policies built upon the use of non-public Chinese-origin algorithms, rather than allowing Chinese companies to participate in open, international standards setting. Several rationales can be ascribed for this alternative approach, including national security concerns, a desire to promote indigenous innovation in China, and a policy to minimize payment of royalties to foreign intellectual property rights holders. The adoption of separate national standards pose interoperability and therefore market access problems.

Taking this path of a national approach to trusted computing standards development can also be contrary to China's own interests. It can undermine China's innovation agenda, denying Chinese ICT companies access to the most advanced technology available through global supply chains. It is sufficiently important that if enforced, it can retard China's economic growth, raising costs for the entire global ICT industry and reduce market opportunities. The closed and non-transparent nature of the Chinese national standard for trusted computing can also undermine the security objective reportedly motivating China's leaders, as closed specifications are inherently less secure. Open systems ensure full testing for security vulnerabilities before products are released on the market. A closed Chinese national standard for trusted computing – if

¹³ *Policy Issues Arising in China's Development of State-Sponsored Domestic Standards for Trusted Computing*, Dewey & LeBoeuf LLP, a study prepared for the Trusted Computing Group, June, 2009

made mandatory – will undoubtedly reduce consumer confidence in Chinese ICT products.

In an era of globalization which has provided so many advantages for Chinese trade and industrial development, erecting national barriers can be extremely counter-productive.

Similar issues arise with respect to software related to information security. In June 2007, the Ministry of Public Security (MPS), the State Encryption Management Bureau (SEMB), the State Secrets Bureau, and the State Council Informatization Office (SCITO) promulgated the Administrative Measures for the Multi-Level Protection of Information Security (MLPS), which mandated that all systems nationwide be classified into one of five security levels. For today's purposes it is enough to cite Level 3 defined as follows: *The damaged information system causes serious damages to social order and public interests or harm to national security.* This extends the level of “national security” review of information systems well beyond the traditional areas of sensitive government and military networks. Among the systems that must be graded under the MLPS are basic information telecommunications, broadcasting and TV networks, Internet information services entities, and systems related to transportation, banking, insurance, commerce, education, culture, labor and social security.¹⁴

According to the MLPS Administrative Measures, information security products graded at level 3 or above must meet a number of requirements, including: (1) The product developers and manufacturers must be owned by Chinese citizens, legal persons or the state, and have independent legal personality in China; (2) the core technology and key components of products must have independent Chinese or “indigenous” intellectual property rights; and (3) products that have been listed in the Certification and Accreditation Administration (CNCA) catalogue of information security products must acquire a certificate issued by the National Information Security Center (ISCCC). The Administrative Measures also provide that products containing encryption technology must be approved by the Office of Security Commercial Code Administration (OSCCA), and no imported products with encryption functionality can be used without approval.

The combination of these requirements may significantly restrict the use of foreign information security products in systems classified at Level 3 or higher under the MLPS. It does not strain the imagination to think that were this system of requiring that only Chinese products with Chinese intellectual property be used for education, banking, insurance, etc, not only would the interests of China's trading partners be severely compromised but China's economic development would be smothered.

¹⁴ Ministry of Public Security, Notice on Grading Work of National Important Information System Security Multi-Level Protection, Gong Xin An [2007] No. 861.

d. Currency undervaluation

Ministries of Finance and our own Treasury Department would be reluctant to label the practice of consciously undervaluing a currency as an industrial policy tool which might change the jurisdiction within a government over the policy responses to the trade and industry officials). RMB undervaluation certainly has the effect of enhancing exports and dampening imports of products that are destined for consumption in China – in that respect it is an industrial policy measure. There is a consensus view among many respected economists that whatever methodology is employed, the RMB is undervalued by about 30%. This would, for the United States, be about the same as the rebate at the border of the corporate income tax and charging the equivalent amount on all imports. It is impossible to maintain that doing so would not have profound trade effects. Currency manipulation would seem to be addressed by Article XV of the WTO/GATT which provides that WTO members “shall not, by exchange action, frustrate the intent of the provisions of this Agreement.”

The effect on foreign industries of a severe currency misalignment is to turn the healthy garden hose of international competition into a fire hose with devastating effects, particularly domestic industries face competing imports. With respect to exports or investments in China, the impact is less as nonmarket factors may determine sales. If a standard prevents a sale, or a government agency or state-owned enterprise will not buy a product that is not based on indigenous technology, so that price is not a relevant factor in a purchasing decision, currency undervaluation will not matter. There are also complex analyses needed to determine the effects on trade balances of appreciation of the RMB. If a large number of the products sourced in China are assembled in a processing zone from imported content, and the Chinese content and value-added is low, revaluation will not have the anticipated effect.

e. Other measures

Subsidies come in many more targeted forms than the exchange rate. Capital infusions, export credits, industrial development loans, debt forgiveness, etc., as with European launch aid for Airbus, can create an industry and make it a factor in world trade. If the countervailing duty remedy is employed with respect to domestic subsidies in China when products benefiting from the subsidies are exported, much more will be learned of their magnitude and placement. In our firm’s studies of industries as varied as telecommunications equipment to oil country tubular goods, we have found a remarkably high incidence of domestic subsidies.

Renewable Energy Electrical Generating Equipment

In preparing this testimony, I was asked to address this green goods sector due to the fact that our firm prepared a study¹⁵ on China's promotion of it.

In 2008, the Climate Group, an international nonprofit organization working to address climate change, released a study which concluded that China has emerged as the world's leading producer of energy from renewable resources and would overtake developed countries in creating clean technologies. The Chinese government forecast that in 2009, China led the world not only in installed capacity but total investment in renewable energy. To a considerable extent these developments reflect the impact of China's giant hydropower projects and the continuing installation of small hydropower facilities. However, China's renewable energy profile is increasingly defined by "new renewable" sources of electricity — solar, wind and biomass power. China has emerged as a world leader in the manufacture of solar photovoltaic technology, and is forecast to become the world's leading exporter of wind turbines. China's leaders view these dramatic developments as a reflection of supportive government policies.¹⁶

a. Solar energy equipment

America pioneered solar PV technology, and, as recently as the mid-1990s we had about 45 percent of the world market share, but we have let that lead slip away. Today, we have only about 5 percent of the world market. The U.S. needs to jump back into the clean energy race and play to win.

Steven Chu, U.S. Secretary of Energy, May 7, 2010

In 2008, China became the largest producer of solar panels in the world. The U.S. is the fastest growing photovoltaic (PV) market in the world, and is predicted to be the largest PV market this year or next. With heavy subsidies, by the first half of 2009, there were some 50 companies constructing, expanding or preparing polycrystalline silicon production lines in China. China's capacity is forecast this year to about twice world demand.¹⁷ According to China's Ministry of Industry and Information Technology (MIIT), capacity utilization in the Chinese polysilicon industry is only 26%. As actual capacity is only 55% of planned capacity, excess capacity, unless demand skyrockets in the near term, is only going to get very much worse.

¹⁵ National Foreign Trade Council study, *China's Promotion of the Renewable Electric Power Equipment Industry*, prepared by our firm in March of this year..

<http://www.nftc.org/default/Press%20Release/2010/China%20Renewable%20Energy.pdf>.

¹⁶ Ibid.

¹⁷ Ibid. The report contains additional data.

Foreign firms had not entered to any large degree the Chinese market but are beginning to. First Solar announced that it will build the world's largest solar plant in Inner Mongolia, and is planning a project to have the largest installed capacity generating plant in the world at this site. With the support of the Wuhan government, Massachusetts solar cell manufacturer Evergreen Solar is planning future expansions in China, working on a new plant with another PV manufacturer, Jiawei Solar (Wuhan) Company and the Wuhan Donghu New Technology Development Zone Management Committee, part of the Wuhan provincial government in Wuhan, China.¹⁸

Well over 90% of China's PV production is exported (figure 4). Exports of PV modules and panels from China to the United States are expanding rapidly. Solar cells and panel imports from China were up 82.6% in 2009 over 2008. Imports in January to April 2010 were up 159.1% over the same period in 2009. Total value of imports in 2009 was \$419 million. Imports in the first four months of 2010 have already reached to \$206 million.

b. Wind energy equipment

Subsidies in China for the development of wind power equipment have existed at least since 1986. By 1999, with subsidies, about 40 Chinese companies were producing (mostly small) wind turbines. In the late 1990s, subsidies for R&D to develop larger turbines were granted by the Ministry of Science and Technology (MOST). Chinese government requirements for purchasing of energy from wind farms drove demand. Technology transfers were required of foreign companies with Chinese joint venture partners. An initial local content of 20% was set. Foreign firms could not select their partners and this "Ride the Wind Program" was not judged a success. The State Economic and Trade Commission (SETC) created a National Debt Wind Power Program to provide government loans at subsidized interest rates to wind farm owners who purchased locally made wind power components. During the Ninth Five Year Plan (1996-2000), the local content requirement for National Development and Review Commission (NDRC) projects was increased to 40%, but Chinese companies began to supply equipment with 70-80% local content.

In 2004, NDRC's Wind Power Concession Project was launched. This project would account for most of China's installed wind power capacity. Required local content was moved to 70% and in 2005 was to exceed 70%. In 2005, Vestas, a Danish company, and the world's largest wind turbine producer, won a major bid. Since 2005, no single foreign wind turbine manufacture has won an NDRC concession tender. Foreign share of the Chinese market for annual wind energy equipment procurement has dropped from 75% in 2004 to 13.1% this year. The electric utilities participating in the NDRC projects are state-owned enterprises and they are to a great extent no longer purchasing foreign equipment. Foreign-owned Chinese companies were not considered to be Chinese for purposes of bid evaluation, despite meeting local content requirements. Foreign

¹⁸ http://www.pv-tech.org/news/a/evergreen_solar_shifts_manufacturing_future_to_china_targets_us1_w_in_2012/.

companies were still selling to some extent in some provincial markets. Recently, a standard has been employed, requiring a minimum turbine size, which has excluded a substantial portion of European manufacturers' products.

In October 2009, China agreed at the Joint Committee on Commerce and Trade (JCCT) to eliminate local content requirements. It is not clear that this commitment has been implemented, nor how meaningful it is, since foreign manufacturers with high local content which they had already achieved could not in any event succeed in selling turbines to NDRC concession projects. Chinese officials claim that Chinese suppliers are simply the lowest bidders. Purchase of equipment based on indigenous technology is still being stressed. Official statements call for opening up the international market for Chinese production. A tariff and VAT rebate was instituted in 2008 to support R&D and production of domestic firms.

By 2009, over 100 wind turbine manufacturers were operating in China. The State Council warned of over-capacity, and financial institutions were restrained in their lending to this sector. Chinese exports of wind turbines have not accounted for very much of Chinese production to date (about US\$80 million estimated in 2009), but that could change. China's actual imports of wind turbines from the United States and Europe in 2009 (as opposed to purchases from foreign companies manufacturing in China) was probably less than \$10 million in an estimated \$8.6 billion market.

On June 10, 2010, the China Wind Energy Association (CWEA) published 2009 data on installed wind power equipment in China. The foreign share of new annual purchases in 2009 fell to 13.1% from 24.4% in 2008 and from 75% as recently as 2004 (figure 5). The cumulative foreign share of total installed capacity fell to 24.1% in 2009 from 38.2% in 2008 and 82.2% in 2004 (figure 6).

Conclusion

China's transformation of its own economy and its integration into the world economy has been a work in progress over these last three decades. By any measure, China has made enormous strides in bringing market forces to bear within its economy, but there have been signs for several years that the period of opening may have come to an end, and market closure may be taking place.

With Japan a few decades ago, there was little understanding by U.S. policymakers of the realities of the Japanese market. Those who sought to sell in that market understood fully that they could not do so, but even they did not have a complete understanding of why that was the case. A number of industries paid for the lack of knowledge and their government was not of much help except in rare cases. Academics and think tanks were generally uninformed as well. The result was a series of bilateral trade conflicts, protection of the U.S. and European markets which was ineffective and might just possibly have been avoided, and in the end decades of economic stagnation for Japan.

China has taken a different course than Japan did and has done much that has provided it with spectacularly positive results. But it has a very large and growing population and its leaders cannot really afford major policy errors. The National Indigenous Innovation Policy is an interesting case in point. The 16th century European scientist Paracelsus opined that a substance given in small doses could function as a medicine which when administered in large doses would be a poison. Rewarding innovation is important. That is why we, and China, have a patent system. Requiring that government agencies purchase goods that were invented in China by Chinese entities will prove counterproductive in age of globalization, and in fact would be counterproductive in any age. Adoption by state-owned enterprises of this behavior multiplies self-inflicted harm of this policy mistake. Penicillin and the structure of DNA were British discoveries. It would have been highly counterproductive to try to have American alternatives. This did not mean that the scientific knowledge from Britain could not be used in American (and in all other) universities to continue to innovate.

China will have to find its own way. At the same time it is the responsibility of U.S. policymakers to have at hand as complete a picture as possible of foreign industrial and trade policies in order to make informed decisions. The United States must understand the effects of Chinese industrial policies and the implications for the U.S. economy and plan its own strategies with better knowledge of the realities of international competition. That cannot be done today. The requisite information is not available. It is not being systematically collected and evaluated. The United States will pay a price for not doing so.

Alan Wm. Wolff
June 16, 2010

Note: The views expressed in this paper and oral testimony are personal and do not necessarily represent the views of any client or organization with which I am now or have been affiliated.

Annex B to this testimony contains a statement delivered last week before the U.S.-China Economic and Security Review Commission on *China in the WTO* which is relevant to any consideration of China's trade policies and its industrial policies that have trade effects.

China's industrial overcapacity issue

Industrial overcapacity had been a long-standing problem in China's economic development and uncertainty in the country's recovery from the economic slowdown, and the government has repeatedly tried to curb overcapacity in a range of sectors.

The following are major relevant cases, quotes and figures:

-- On Oct.19, China's 10 departments, including the National Development and Reform Commission and the Ministry of Industry and Information Technology (MIIT), jointly made a warning that the country's economic recovery could be hampered with chaotic expansion in certain industrial sectors, especially in steel making, cement, plate glass, coal chemical, polycrystalline silicon and wind power equipment sectors.

-- On Dec.7, China's Central Economic Work Conference (CEWC), the annual economic planning meeting, agreed at its conclusion to advance economic structure adjustment and focus on overcapacity elimination with strictly controlled lending to industries that were energy-intensive, polluting and had overcapacity.

-- On Dec. 21, Li Yizhong, Minister of Industry and Information Technology, said China would stop approving new projects in some industries involving excessive production capacities and duplicate constructions in the coming three years so as to guide healthy industrial development in the country.

Li noted that the government will raise the access thresholds for steel, cement, flat glass, and coal chemical industries for the purposes of efficient energy consumption, environmental protection, and integrated utilization of resources.

-- Wang Jian, secretary general of China Society of Macroeconomics, said in an article in the state-run magazine Liao Wang (Outlook), that China is facing more industries with overcapacity, rising from 11 industries in 2005 to 17 currently.

-- On Dec.23, China had again asked its financial institutions to help curb overcapacity in some industries with credit control last week, according to a joint statement issued by the People's Bank of China, China Banking Regulatory Commission, China Securities Regulatory Commission and China Insurance Regulatory Commission.

-- In 2008, China's crude steel production capacity reached 660 million tonnes with 58 million tonnes still under construction, while actual demand stood at only around 500 million tonnes.

The cement sector also saw huge excess capacity. Total capacity in the sector was 1.87 billion tonnes by the end of last year, but only 1.4 billion tonnes of cement was produced in 2008. By the end of September this year, another 600 million tonnes of capacity were put to use or under construction, MIIT figures show.

Xinhua, December 27, 2009

THE COST OF CHINA'S EXCESS CAPACITY

The world has changed; but China has not. China has responded to the world financial crisis with what seems to be great success. But this is an illusion. China's solution – a surge in spending on investment – will create greater excess capacity. China's high-savings, high-investment economy is costly for its people and destabilising for the world. The time for a radical reform is long past.

In a disturbing new report, the European Chamber of Commerce in China lays out the challenge in six sectors: aluminium, where the capacity utilisation rate is forecast to be 67 per cent in 2009; wind power, on 70 per cent; steel, on 72 per cent; cement, on 78 per cent; chemicals, on 80 per cent; and refining, on 85 per cent. Yet vast additional capacity is on the way.

The scale of the excess capacity is breathtaking. At the end of 2008, China's steel capacity was 660m tons against demand of 470m tons. This difference is much the same as the European Union's total output. Yet, notes the report, "there are currently 58m tonnes of new capacity under construction in China". To the extent that gross domestic product is driven by such absurd spending is a measure of waste, not of economic welfare.

Foreign producers fear the impact of China's growing surplus capacity on their markets. But this is not just a problem for specific industries. It is a broader problem. China has become hooked on an unbalanced pattern of economic development, in which investment cures this year's excess capacity by increasing next year's.

In China's current development model, household income is taxed, to support corporate profits. Corporations now generate more than half of China's huge savings. Since consumption tends to grow more slowly than GDP, excess capacity can only be used up via yet more investment or exports. This year, economic crisis has made the latter impossible. But China desperately needs to expand its exports once again. The result may well be a crisis in the trading system.

China's trading partners have to engage with the rising giant. They must explain that they cannot – and will not – absorb the surplus capacity its heavily distorted model of development is creating. But they can point out that this pattern also damages the standards of living of ordinary Chinese. China has to shift income from its corporations to its households and spending from investment to consumption. What is needed for that is a massive structural reform. This must start now. Indeed, it may already be too late.

Financial Times, November 29 2009