CHAPTER 1

THE U.S.-CHINA TRADE AND ECONOMIC RELATIONSHIP

OVERVIEW

China is America's third largest trading partner, behind Canada and Mexico.[1] But China's trade relationship with the United States is extremely unbalanced. China exports to the United States six times the value that it imports from the United States. In 2005, total U.S. exports to China were $41.8 billion, while imports from China amounted to $243.4 billion.[2] In 2006, these numbers are estimated to increase to $56.3 billion and $284.9 billion, respectively.[3] Although this lopsided economic relationship has led to heightened tensions between the two countries, the bilateral trade imbalance continues to grow. In 2006, China's trade surplus with the United States is expected to increase 13 percent to $228.6 billion.

China's global current account surplus, the broadest measure of trade and investment flows, continues to accelerate.[4] Foreign direct investment in China increasingly affects the volume and type of China's international trade. Foreign-funded firms operating in China dominate the landscape of international trade. In 2005, 58 percent of China's exports came from foreign-invested enterprises.[5] The dominance of foreign capital in the export sector is a reflection of Chinese industrial policy, which attempts to attract foreign investment to export-related manufacturing enterprise in China. Among the direct incentives for such foreign investment are tax breaks, low-interest loans, discounts on land purchases, and government-provided infrastructure enhancements.

Trade tensions between the United States and China are heightened by China's failure to abide by the international trade agreements to which it is a party. For example, China agreed in 2001 as part of its application to join the World Trade Organization to eliminate certain government subsidies meant to encourage exports. China, however, still has an industrial policy that employs a wide variety of subsidies to promote favored industries. As a result, U.S. exporters and some U.S. investors, particularly those in financial services, face a variety of non-tariff barriers and major impediments to conducting business in China.

The U.S.-China trade and investment relationship exposes U.S. industry and the U.S. innovation base to huge levels of intellectual property theft—in the case of entertainment software, approaching the 100 percent level. This is a growing problem for U.S. competitiveness as intellectual property industries contribute to more than half of all U.S. exports and represent 40 percent of U.S. economic growth. Fifty-five percent of U.S. companies operating in China were hurt by intellectual property rights violations according to a business association survey in 2006.[6] The U.S. Chamber of Commerce estimates that the global intellectual property industry loses $650 billion in sales due to counterfeit goods.[7] And some analysts estimate that China is responsible for as much as 70 percent of this counterfeit goods market.[8]

U.S. businesses and workers and the overall U.S.-China trade and investment relationship are vulnerable to harm from China's non-market-oriented financial system and monetary policy, as well. For example, China maintains an extensive system of subsidies for manufacturing based in China, from easy money and loan forgiveness from the banks to an artificially low exchange rate for the renminbi. Chinese banks are predominately state-owned or state-controlled and often are expected to grant loans with below-market interest rates, carry large amounts of defaulted loans on their books, or forgive such debts of government-owned companies. In a centrally planned economy such as China's, these loans are a device to preserve internal stability and strengthen the control of the Chinese Communist Party. Furthermore, China's government undervalues the renminbi relative to the dollar at a level estimated by most economists to be between 15 percent to 40 percent.[9] The undervalued renminbi makes U.S. products more expensive in China than they would be if the renminbi were allowed to seek its own level in the international currency markets. As a result, U.S. manufacturers are able to sell fewer of their goods to China. Conversely, the undervalued renminbi makes Chinese products less expensive in the United States than they would be if the international currency market were allowed to determine the relative value of the two currencies. Therefore, U.S. consumers buy more from China. The failure to address this problem is increasingly a factor in U.S. companies relocating production to China. The overall result is a growing U.S. current account deficit and increasing ownership of U.S. debt instruments by the Chinese. The Chinese banks now have $1 trillion in foreign currency reserves, the majority of which is held in U.S. dollar-denominated bonds.[10]

As China approaches the fifth anniversary of its admission to the World Trade Organization on December 11, 2006, these problems stand out as major impediments to a more equitable and rules-based trading relationship between China and the United States. There is a great deal at stake in the seeming minutiae of trade agreements, because the decisions of two of the world's economic giants have consequences for their 1.6 billion residents as well as for those in Europe, Africa, and Latin America. Jobs, industries, and entire regions can be jeopardized by the irresponsible actions of other nations in a global economic system that is ever more intertwined. This chapter will highlight some of the problems that continue to rend the fabric of fair trade: currency manipulation, counterfeiting, export subsidies, industrial polices aimed at discouraging imports and encouraging exports, hidden trade barriers, and discrimination against foreign investors. None of these practices is permitted by any of the trade agreements that China and the United States have signed. Acknowledging the harm that Chinese practices do to workers, consumers, and investors in each country is the first step in the reform that must follow.

SECTION 1: THE STATUS OF CHINA'S COMPLIANCE WITH ITS WORLD TRADE ORGANIZATION OBLIGATIONS AND THE IMPACT OF CHINA'S INDUSTRIAL SUBSIDIES ON U.S. AND OTHER MARKETS

> The Commission shall investigate and report on "WORLD TRADE ORGANIZATION COMPLIANCE—The compliance of the People's Republic of China with its accession agreement to the World Trade Organization."

Key Findings

- China's adherence to its many World Trade Organization (WTO) obligations remains spotty and halting in important areas five years after China attained membership. As a result, U.S. exporters and investors face a variety of non-tariff barriers and major impediments to conducting business in China. In some areas, such as banking reform, China has made progress. But in too many cases, the government has delayed and even backtracked on its obligations.
- China "has not yet fully embraced the key WTO principles of market access, non-discrimination, and national treatment, nor has China fully institutionalized market mechanisms and made its trade regime predictable and transparent . . . [and China] continues to use an array of industrial policy tools . . . to promote or protect favored sectors and industries," according to the U.S. Trade Representative.[11]
- China's failure to enforce intellectual property rights provides a particularly egregious example of its noncompliance with WTO rules. China's refusal to protect copyrights, inventions, brands, and trade secrets has placed it first among nations on the U.S. Trade Representative's "priority watch list" of countries that tolerate intellectual piracy.[12]
- China has a centralized industrial policy that employs a wide variety of tools to promote favored industries. In particular, China has used a range of subsidies to encourage the manufacture of goods meant for export over the manufacture of goods meant for domestic consumption, and to secure foreign investment in the manufacturing sector.
- China artificially lowers the value of its currency to maintain an export-led trade policy. The State Administration for Foreign Exchange accomplishes this by buying dollars and other foreign currency in China at a fixed rate of around 8 renminbi to the dollar. Only small fluctuations in the value of the renminbi are allowed.
- At times, China's central government and governing bodies in the provinces and localities appear to be operating at cross purposes. Decisions by the central government meant to comply with WTO rules sometimes are ignored in the provinces. Regulations established by Beijing are not necessarily enforced elsewhere.

Overview

China spent 15 years negotiating the terms of its accession to membership in the General Agreement on Tariffs and Trade (GATT) and its successor organization, the WTO.[13] Despite the fact that China was officially designated a "non-market economy," it was admitted to WTO membership in December 2001.[14] Among the motivations for the United States and other nations to approve its accession was the idea this would encourage continued economic policy reform in China. In conjunction with China's WTO accession, Congress granted Most Favored Nation trading status to China on a permanent basis, ending the preceding practice of annual Congressional review of China's trade and human rights practices. Proponents of normalizing trade relations with China and allowing it into the now-149-member WTO argued at the time that accepting a country whose market mechanisms were so primitive and whose economy was still centrally controlled by a Communist dictatorship would accelerate economic liberalization. They noted that China's leadership had openly acknowledged since 1978 that economic reform was required to bring prosperity to a nation impoverished by clumsy central planning. Opponents of China's WTO admission countered that allowing entry to a country whose institutions and practices were so far removed from market-oriented, free-trade principles would cause large disruptions and imbalances in international trade and result in U.S. job loss.

Today, both sides can point to evidence to support their views. On the positive side, China has sustained a Gross Domestic Product (GDP) growth rate of over nine percent since its admission to the WTO. The proportion of China's population living below the extreme poverty line—$2 per day—fell from nearly 73 percent in 1990 to 32 percent in 2003. Meanwhile, the sector of the economy represented by private enterprise expanded to the point that it now produces nearly 60 percent of China's GDP.[15] In marked contrast to other Asian nations such as Japan and India, China has generally welcomed foreign direct investment and has encouraged joint ventures with Chinese companies. In parts of the services sector, China appears committed to allowing foreign investment as a way of acquiring and applying the management expertise of foreign companies. For example, China opened the domestic currency trade in several cities to foreign banks ahead of schedule.[16] The United States and China agreed in 2004 to substantially increase direct air services between the two nations over the next six years, including both passenger and cargo services. In addition, China has reduced tariff rates on many products on schedule and reduced the number of import quotas in addition to expanding trading rights.[17] China also has granted distribution rights to foreign companies, thereby allowing their products to be sold directly to consumers. China is now America's second largest market for aircraft exports and the tenth largest market for services exports, according to figures compiled by the U.S. Trade Representative.[18] Beijing also has also made laudable efforts to educate its business leaders and its citizens in the intricacies of WTO regulations and requirements, distributing written guidelines and offering seminars on the new requirements.

But China also has missed many opportunities to comply with both the letter and the spirit of the WTO rules and with its own agreement to phase-in market-oriented reforms. In terms of economic reform, China has essentially gathered the "low-hanging fruit" and must now undertake the more difficult challenges.[19] As the U.S. Trade Representative has said, China "has not yet fully embraced the key WTO principles of market access, non-discrimination, and national treatment, nor has China fully institutionalized market mechanisms and made its trade regime predictable and transparent . . . [and China] continues to use an array of industrial policy tools . . . to promote or protect favored sectors and industries."[20]

While an increasing proportion of the economy is private—perhaps 60 percent of GDP is produced by private sector sources—Beijing still wields a heavy hand in planning the overall economy, particularly when it comes to promoting an export-based growth strategy. The Chinese State Council presents a Five-Year Plan that sets forth the economic and development priorities for the coming years. The 2006-2010 period will be governed by the eleventh Five-Year Plan that denotes specific industries to be promoted. These include integrated circuits and software, next-generation network technology, biomedical technology, civilian aircraft, satellite applications, and equipment manufacturing industries, including clean power generation equipment, rail transportation equipment, and machine tools.[21] To encourage domestically-owned firms to move up the value-added chain, China currently is encouraging investment in high technology-based manufacturing and uses "guidance" as well as trade policy instruments for this purpose.[22] These capital goods industries are currently dominated by the United States and other technologically advanced nations and are considered the crown jewels of exports.

Beijing employs such administrative "guidance" to banks to direct loans and favorable terms to certain businesses and industries. China's tax system encourages foreign direct investment by applying 15 percent and 24 percent income tax rates to foreign-based affiliates operating in China while requiring domestic companies to pay a 33 percent tax rate. Government at all levels can use tax breaks to lure investments. The result is an allocation of resources in favor of manufacturing and export-oriented business.[23]

Manufacturing, especially export-oriented manufacturing, has developed more rapidly than other sectors as a result of such government incentives. According to the WTO's analysis, this segment of industry, which includes manufacturing, mining, and production and supply of electricity, gas, and water, accounted for over 40 percent of GDP in 2005. Manufacturing, much of which is dominated by foreign-invested enterprises, now accounts for over 90 percent of China's merchandise exports. Foreign-invested enterprises appear also to account for a greater share of the output of higher value-added production.

Enforcing China's WTO Compliance

The WTO conducts studies of compliance with its rules. Organizations such as the U.S. Chamber of Commerce, the International Intellectual Property Alliance, the National Association of Manufacturers, and the U.S.-China Business Council also analyze compliance with WTO rules, and report findings to a federal interagency group in Washington, the Trade Policy Staff Committee, which produces an annual evaluation of China's WTO compliance that is published by the U.S. Trade Representative. These studies help focus attention on unfair trade practices by pointing out apparent violations of trade laws.

The WTO process favors negotiation over confrontation, a fact embodied in the language of the process, which references "dispute settlement panels" rather than "courts." The first step of the process requires the two sides in a dispute to meet to settle their differences. Only then can a formal complaint be brought to the WTO. Even then, either party can initially block the formation of a three-judge panel to hear a case. The adjudicative phase of a WTO complaint occurs only after mandatory "consultations" among the parties have failed to reach a compromise. Deliberations of the panels, the second step in the process, are secret and the decision is given to the parties for a 30-day comment period before being released to the public. The intent of every stage of the process is to encourage the parties to settle amicably. In fact, in response to a WTO complaint by the United States over China's treatment of U.S. semiconductors, China and the United States quickly reached a settlement. The two countries should view the entire process as one of encouraging needed reform and bringing fairness to trade.

Centrally Planned Subsidies

In its WTO accession agreement, China agreed to eliminate certain government subsidies meant to encourage exports—specifically, tax incentives and preferential bank financing restricted to producers who agree to export their products. China also pledged to end government programs that encourage local sourcing for parts instead of using imported parts.[24] But since joining the WTO, China has increased the use of such export subsidies.[25] In both its December 2005 Report to Congress on China's WTO Compliance and its February 2006 Top-to-Bottom Review of U.S.-China Trade Relations, the U.S. Trade Representative has detailed China's efforts to protect domestic producers:

> *"Since acceding to the WTO, China has increasingly resorted to industrial policies that limit market access by non-Chinese origin goods or bring substantial government resources to support increased exports . . . In 2005, examples of these industries are already evident. They include the issuance of regulations on auto parts tariffs that serve to prolong prohibited local content requirements for motor vehicles, the telecommunications regulator's interference in commercial negotiations over royalty payments to intellectual property rights holders in the area of 3G standards, the pursuit of unique national standards in many areas of high technology that could lead to the extraction of technology or intellectual property from foreign rights-holders, draft government procurement regulations mandating purchases of Chinese-produced software, a new steel industry, continuing export restrictions on coke, and excessive government subsidization benefiting a range of domestic indus-*

tries in China. Some of these policies appear to conflict with China's WTO commitments in the areas of market access, national treatment and technology transfer, among others." [26]

According to Loren Yager, Director for International Trade at the Government Accountability Office, "Chinese subsidies remain very difficult to identify and quantify, largely because of the structure of the Chinese economy and the lack of transparency in the country's subsidy regime." [27] However, there are a plethora of practices that act as indirect subsidies: preferential tax policies, government funds for state-owned enterprises, double bookkeeping by such enterprises, subsidized inputs for such enterprises, "give-away" prices on energy and land, sectoral credit allocation, loan extensions, debt forgiveness, wage ceilings, and the undervalued renminbi.

The result of subsidies intended to attract factories from abroad and boost China's production of goods for export can be seen easily in three key 2005 economic statistics. Foreign-funded firms [28] in China produced 58 percent of China's exports in 2005.[29] Seventy-one percent of the $60.6 billion in foreign direct investments in 2004 went to the manufacturing sector.[30] Manufactured goods accounted for 94 percent of China's exports.[31] China's industrial policy directly harms U.S. manufacturers and results in the loss of U.S. manufacturing jobs.

For example, China subsidizes its steel industry by 1) transferring facilities and land at below market prices; 2) providing debt-to-equity swaps through state-owned banks; 3) providing debt forgiveness through state-owned banks; 4) providing tax benefits for export performance; 5) controlling the prices of raw materials; and 6) maintaining an undervalued renminbi. Subsidies such as tax benefits based on export performance are clearly prohibited by WTO rules. By intervention in the steel industry, the Chinese government has created substantial excess capacity and "has skewed the entire world market for steel and for steel raw material." [32]

Many subsidies in China are distributed through China's banking system to state-owned institutions. Not all loans to state-owned enterprises fall into default and not every loan is forgiven rather than repaid. But a significant portion of these loans eventually is written off, constituting an unwarranted subsidy. Standard & Poor's estimates China's delinquent loans total approximately $600 billion.[33] In the past, this credit was provided from government funds to the state-run economic sector to fund pensions and other employment-related expenses. Now, the funds are mainly used to pay for "extravagant real estate projects" and a general "over-investment in fixed assets." [34]

China's low wage rates due to unpaid, underpaid, and repressed labor constitute another indirect subsidy to Chinese producers, including domestic, joint venture, and foreign-funded companies. Chinese official sources report over 100 billion renminbi ($12.6 million) in unpaid wages, 70 percent of which are in the construction sector.[35] China has not ratified four of eight core International Labor Organization Conventions. Those not ratified concern the right to organize and collectively bargain and the abolition of forced labor.[36] By refusing to accept the responsibilities that other WTO members accept for their workers, the Chinese government countenances low compensation of labor in violation of international standards, essentially subsidizing those firms that take advantage of this Chinese laxity.

SECTION 2: CHINA'S APPROACH TO INTELLECTUAL PROPERTY RIGHTS AND ITS PRODUCTION OF COUNTERFEIT GOODS

> The Commission shall investigate and report on—
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> "UNITED STATES–CHINA BILATERAL PROGRAMS—Science and technology programs, the degree of non-compliance by the People's Republic of China with agreements between the United States and the People's Republic of China on prison labor imports and intellectual property rights, and United States enforcement policies with respect to such agreements."
>
> "WORLD TRADE ORGANIZATION COMPLIANCE—The compliance of the People's Republic of China with its accession agreement to the World Trade Organization."

Key Findings

- Despite its many promises to comply with its international obligations to protect intellectual property, China has failed to deter widespread violations of trademarks, copyrights, and patents. The failure stems from lenient rules and regulations, mild penalties for transgressors, and an overall lack of enforcement. Although the central government has made some effort to pass stricter laws, enforcement at the local and provincial levels lags far behind. Ultimately, the central government is required by its World Trade Organization membership to accept responsibility.
- China's failure to protect intellectual property is a serious problem for U.S. competitiveness. U.S. intellectual property industries contribute to more than half of all U.S. exports and represent 40 percent of U.S. economic growth. While the full extent of loss to U.S. industry due to Chinese intellectual property rights violations is unknown, U.S. industry reports losses totaling billions of dollars. The U.S. Chamber of Commerce estimates that the global intellectual property industry loses $650 billion annually in sales due to counterfeit goods.[37] And some analysts estimate that China is responsible for as much as 70 percent of this counterfeit goods market.[38] Annual losses to the U.S. copyright industries are estimated to be between $2.5 billion and $3.8 billion.[39] And U.S. pharmaceutical industries lose 10 percent to 15 percent of annual revenues in China due to intellectual property infringement.[40]
- The Customs Bureau of the U.S. Department of Homeland Security made 3,709 seizures of counterfeit goods originating from China in fiscal year 2005, totaling $64 million.[41] Total exports of counterfeit goods from China to the United States generally are estimated to be much higher and can be expected to increase even further. Not only is China's enforcement of intellectual property laws weak, but China also has liberalized its strict ex-

port licensing regime to allow any business to export. As more businesses begin to export, counterfeit goods will be easier to ship.

- Counterfeit exports from China pose a health and safety threat to U.S. citizens. The World Health Organization reports that counterfeit pharmaceuticals of Chinese origin cost pharmaceutical companies $32 billion a year.[42] Chinese counterfeiters have produced batteries that explode because of faulty manufacturing, and engine timing belts that break after only one-fifth the time of the authentic product.[43]
- Counterfeit products account for 15 percent to 20 percent of products made in China and equal eight percent[44] of China's $2.2 trillion[45] gross domestic product (GDP). In some cities, the manufacturers and distributors of counterfeit goods are the major employers and the dominant contributors to the tax base.
- Many local governments in China are so financially dependent on the counterfeit trade that they are reluctant to interfere with the violations, and officials at those levels often profit personally from counterfeiting.
- Several U.S. industries, particularly those dependent on copyright protections, report high piracy rates of their products in China. For example, the piracy rate for business software has reached 86 percent.[46] In this situation, the WTO dispute settlement mechanism provides the strongest enforcement tool available to the United States government to address China's failure to enforce intellectual property rights.
- Market barriers to American exports to China contribute to the climate of piracy in China. When U.S. companies experience Chinese government censorship, delays, distribution restrictions, or other barriers in getting their products to market, counterfeiters move in first.

Overview

There is little disagreement among international bodies that China fails to enforce intellectual property rights (IPR). The requirement to enforce such international rules of commerce is a fundamental obligation of membership in the World Trade Organization (WTO), and for good reason: advanced economies especially depend on the innovation of inventors and visionaries. According to Christopher Israel, Coordinator for International Intellectual Property Enforcement at the Department of Commerce, American intellectual property industries contribute to more than half of all U.S. exports and represent 40 percent of U.S. economic growth. Fifty-five percent of U.S. companies operating in China were hurt by intellectual property rights violations, according to one survey.[47] Current estimates are that counterfeit and pirated products in China amount to eight percent of China's $2.2 trillion GDP.[48] The U.S. Chamber of Commerce estimates that the global intellectual property (IP) industry loses $650 billion in sales due to counterfeit goods.[49] Additionally, the Chamber estimates that 750,000 jobs every year are lost due to global counterfeits.[50] China is responsible for as much as 70 percent of this counterfeit goods market.[51]

The implications of China's failure to protect IPR can be divided into two aspects: 1) patent infringement serves to advance Chinese commercial interests as a form of government-coordinated industrial espionage that advances China's science and technology capacity; 2) and the failure to enforce intellectual property rights (patents, copyrights, and trademarks) and the existence of intellectual property-related trade barriers violate China's WTO obligations while they relieve pirates of the cost of complying with the rules.

In the case of the former, the Chinese government has deliberately formulated various strategies to "leapfrog" its science and technology development to keep pace with that found in developed countries. In the case of the latter, China has failed to meet its international obligations to protect intellectual property.

Despite repeated promises to do so during U.S.-China Joint Commission on Commerce and Trade meetings, and when it was being considered for accession to the WTO, China has not significantly reduced its copyright infringement rates. According to the U.S. recording industry, 85 percent of sound recordings sold in China in 2004 were pirated, or 17 of every 20 sold there.[52] Across all copyright industries, piracy rates in 2005 remained between 85 and 93 percent.[53]

IPR Violation as a Component of a Coordinated Science and Technology Strategy

Throughout the 1990s the Chinese government consistently developed science and technology plans based on assimilating foreign science and technology into Chinese society while "keeping the initiative in [China's] own hands." [54] As other developing nations have done, the Chinese government set out to appropriate foreign technology in order to "leapfrog" steps in the development of its national science and technology sector.

Central to China's science and technology development is the symbiotic relationship between military and civilian technology. China's National High Technology Research and Development Plan (the 863 Program) [55] was established in 1986 to focus on closing the science and technology gap between China and more technologically advanced nations. The program covers both civilian and military projects, emphasizes civilian projects, and prioritizes dual-use projects.[56] The goals of the 863 Program are to obtain technology and to encourage international participation in its projects.[57]

The 863 Program continues today along with the National Program on Key Basic Research Projects (the 973 Program).[58] The 973 Program, in which the government plays a role similar to that of a venture capitalist, focuses on the growth of small and medium enterprises in China.

One element of the Chinese government's plan for science and technology development is encouraging patent infringement. The government fosters patent infringement in several ways. Chinese state certification requirements give access to foreign product designs to the Chinese Academy of Sciences and other government actors responsible for China's science and technology breakthroughs. On a variety of products, from industrial machinery to telecommunications equipment to automotive parts, the Chinese government[59] requires a certification mark known as the China Compulsory Certification. "The certification mark serves as evidence that the ... product can be marketed, imported or used [in China]."[60] The certification requires that foreign companies provide product specifications, detailed information on applicable standards, and samples of their products for evaluation.[61] The product specifications then are given to the very organizations that will use them to compete against the IP owner.

Chinese academic communities and enterprises facilitate patent theft through "competitive intelligence."[62] This constitutes the sort of industrial espionage once practiced by the Japanese in the 1980s and 1990s. China established formal "competitive intelligence" operations in 1995 when it established the Society for Competitive Intelligence in China. By using this term common in Western industry, China attempted to make its activities sound like "business as usual." With membership including the Chinese Academy of Sciences and representatives from state-owned enterprises and the academic community, it is currently chaired by a representative of the Chinese company NORINCO.[63] But as of the early 21st century, the operations are still considered to be in the nascent stage by Chinese scholars. In 2001, a Chief Specialist in the 973 Program and a professor at Qinghua University, Luo Jianbin, wrote in China's Science and Technology Daily *(Keji Ribao)* that Chinese companies needed to increase the level of "competitive intelligence" operations on par with those of the Japanese in the early 1990s in order to "leapfrog" China's science and technology development.[64]

Both central and local government entities encourage such industrial espionage. A research website sponsored by China's Ministry of Science and Technology states the importance of a national competitive intelligence model. The author points to Japanese competitive intelligence as a successful system where the central government leads the competitive intelligence activities of the nation.[65] Furthermore, a competitive intelligence system could and should be used to safeguard national defense and public security,[66] placing competitive intelligence strategy in line with the Chinese government's broader science and technology goals.

The Chinese Academy of Sciences sees patents as key to China's "leapfrog" endeavor in science and technology development: "High technology can be mastered more quickly through the use of patent information ... While making use of patents, enterprises can also put inventions and technological innovations under patent protection."[67] The website of China's State Intellectual Property Office demonstrates China's approach to competitive intelligence. The article illustrates that a firm can gain a competitive edge both by patenting its new IP before competitors patent similar products, and by reverse engineering[68] similar items produced by competitors.[69]

The Chinese Government's Lack of Enforcement

Some specific local economies in China rely on the profits derived from the sale of counterfeit goods.[70] Consumers there are freely able to purchase pirated goods though wholesale and retail markets and need not use any underground economy or black market. In some cases, administrative and law enforcement officials at the local level are directly or indirectly involved in counterfeit goods production and distribution. When the violator is a major employer or taxpayer, local officials refuse to enforce the law to avoid jeopardizing a large source of revenue. The town or city may depend almost entirely on the illegal enterprise to generate funds for education or health care.

In addition, organized crime, particularly in southern China, is involved in the manufacture and distribution of pirated goods. Criminals help extend local counterfeit markets to the international level using direct exports or through connections to organized crime networks in Hong Kong and Taiwan.[71]

The Case of Yiwu

Yiwu, located in the center of Zhejiang province just south of Shanghai, has a population of about 1.6 million and, in 2004, its GDP was $3.6 million.[72] Yiwu is known throughout China and the world for its large commodities markets. However, in Yiwu the wholesale market thrives on counterfeit goods. It was established through local government investment and is now the largest taxpayer in Yiwu. Since the same local government that established the market is also responsible for enforcing laws and regulations against counterfeiting, it is no wonder that local enforcement is nil.[73] The U.S. Trade Representative's Special 301 Report of 2006 pinpoints the province of Zhejiang as one of China's four "hot spots" where there is a severe lack of IPR enforcement.[74] Indeed, Yiwu has become a byword for "fake" in China.

The Yiwu Wholesale Market serves as one of China's largest wholesale centers, and an important distribution center for small commercial goods. Some 410,000 different items reportedly are sold in the market, including fake Gillette razor blades with wholesale prices as low as 65 cents for 10 boxes as opposed to the $9.60 someone in Beijing would pay for a real 10-pack.[75] Two hundred thousand distributors purchase 2,000 tons of goods every day and transport these products to all regions of China and throughout Asia, Africa, and South America. According to Yiwu officials, $2.4 billion worth of goods were sold in 1997, the last year for which figures were made publicly available—more than the total business of most multi-national enterprises in China.[76]

While most Chinese local governments do not appear to have the will to enforce IPR, the central government's resolve to address the issue is not much stronger. While some in the central government take intellectual property rights seriously, others see piracy as a typical path for developing nations attempting to foster economic development. For example, if members of the central government strive to develop a globally competitive company in China and believe foreign technology might facilitate that goal, the government may allow the company to obtain the technology illegally.[77] Various economic justifications are advanced to explain the lack of enforcement. Should the central government initiate a national crackdown on IP infringement, cities like Yiwu would be devastated, with tens of millions unemployed, say advocates of non-enforcement. Either the central government would have to tackle and ameliorate severe economic and social consequences, or it would have to face the impacts of those severe consequences.[78]

The difficulties presented by intellectual property theft in China came into sharp focus during the June 2006 Commission fact-finding trip to China. Contradictions were evident among Chinese authorities over the extent and seriousness of the problem. At the Ministry of Commerce, Deputy Director General Jin Xu insisted that IPR violations in China were "negligible" and that those Americans who thought otherwise were merely being duped by inaccurate news accounts. He insisted that no one in China "knowingly" uses pirated software, for example, because it is likely unreliable. This assertion is in contrast to estimates from some American software companies that 90 percent of the computer software in use on Chinese computers is unlicensed.

Yet, the following day, top officials of the State Intellectual Property Office acknowledged that IPR theft is prevalent and pledged China's cooperation in addressing the problem. China, they pointed out, had only begun to protect intellectual property in the 1980s and still has a considerable way to go to approach the degree of protection in the United States and Europe.

At a dinner with a dozen U.S. businessmen and -women hosted by the U.S. Consul General in Shanghai, one executive estimated that 40 percent of Chinese exports of manufactured goods were counterfeit. No one disputed this remarkably high figure, and when a private investigator remarked with a smile that his anti-piracy business was "very lucrative," the others merely laughed ruefully. While those present agreed that there had been a flurry of anti-piracy edicts from the central government, they also noted that actual enforcement at the local level is practically non-existent. Citing the case of an American consumer products company fighting a losing battle against Chinese counterfeiting, one American explained the reluctance of municipal officials to act by saying, "One local firm was making the labels, one the bottles, and one the shampoo . . . shut it all down and you'd have social unrest." In addition, some U.S.-based businesses with strong brands to protect fear an adverse consumer reaction if the consumers are told they may be buying counterfeit goods. "Certain companies are not happy being portrayed in the press as victims of counterfeiting," said one American CEO.

At one point during their trip to China, the Commissioners visited a shopping mall, the "International Commodity Plaza" near the Port of Shanghai. Inside were dozens of shops selling designer shirts, suits, shoes, handbags, watches, jewelry, electronics, and other goods. Their extremely low prices, misspelled labels, odd packaging, and nervous shopkeepers marked the goods as clearly counterfeit. Such shopping markets openly display their wares in each of the Chinese cities the Commission has visited, often within the full view of law enforcement authorities.

In theory, a developing nation might improve IPR protection within its borders to attract foreign direct investment, and particularly to attract high-value-added industries. But in China's case, the level of foreign direct investment remains high despite the lack of improvement in IPR protection. However, the level of foreign investment in basic research projects remains low compared to the high investment in applied research, as foreign companies protect their key IP from exposure to China's pirates. The "innovation society" China is promoting during implementation of its eleventh Five-Year Plan could lead to increased levels of higher-end IP and thus require an increase in patent protection. But while the central government may have some incentive to improve patent protection in order to protect future Chinese innovations, there is no such incentive to safeguard already-copyrighted material.[79]

Legislation and Enforcement

China does not currently make use of effective measures for enforcing its IPR laws and regulations.[80] Without the vigorous use of effective enforcement tools, any efforts to crackdown on IPR infringement are doomed. According to the USTR, "China's own 2004 data showed that it channeled more than 99 percent of copyright and trademark cases into its administrative systems and turned less than one percent of cases over to the police. The trademark and copyright industries continue to point out that administrative fines are too low to provide a deterrent, and as a result, pirates consider administrative seizures and fines to be merely the cost of doing business."[81]

China already has incorporated in its IPR law Articles 9 to 14 of the WTO's Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.[82] However, the legislation it uses to fulfill its obligations is inadequate. For example, during the 2005 meeting in Washington DC of the U.S.-China Joint Commission on Commerce and Trade, (JCCT), China agreed to enact legislation fulfilling World Intellectual Property Organization (WIPO) Internet treaty obligations. But when the U.S. Trade Representative's office examined the implementing legislation, it found that the legislation fails to provide legal protection and remedies against copyright infringement.

Currently, there are three types of IPR enforcement mechanisms in China, each with its own deficiencies:

- **Administrative Enforcement**, which occurs at the local level, is characterized by dilatory implementation and inadequate penalties. In 2004, there were 51,851 administrative cases of trademark infringement and counterfeiting, only 5,494 of which involved foreign rights holders. The average fine was $620 per case and only 96 cases were referred for criminal prosecution. That same year there were 9,691 copyright infringement cases, 158 involving a foreign right holder, of which only 102 cases were referred for criminal prosecution.[83] It should be noted that because the Chinese administrative enforcement system is opaque, it is not possible to determine the outcome of these cases and evaluate how the system is working in practical terms.
- **Civil Enforcement** provides a specialized, IPR-trained judiciary and nationwide jurisdiction. However, China does not have an independent judiciary. Further, damages awarded by Chinese

courts are difficult for plaintiffs to collect. From January to November 2005, there were 11,468 IP-related civil cases (5,240 copyright, 2,491 patent, and 1,482 trademark cases), about five percent of which involved foreign rights holders.[84]

- **Criminal Enforcement** provides a stronger means of deterring piracy, such as the ability to imprison offenders. A 2004 judicial interpretation lowered the thresholds for criminal cases and included new provisions addressing online copyright piracy, accomplice liability, and the import and export of infringing goods. However, Pei Xianding, senior judge at China's Supreme People's Court, told the Commission delegation in June that further lowering the threshold for criminal prosecution in IPR cases will require an amendment to the relevant law by the National People's Congress. Additionally, questions remain unanswered about how to assign value to seized goods, and prosecutors must prove the piracy activity generated a profit and the merchant knew the goods were counterfeit. Judicial interpretation eliminated a "three strikes" rule that required criminal prosecution for third-time repeat offenders.[85] The pace of prosecution is glacial: China's Public Security Bureau initiated 2,991 IP criminal cases in 2005, with 261 cases concluded and the remaining 2,661 still progressing.[86] While information on the consequences of criminal cases is difficult to obtain and what can be obtained often is difficult to evaluate, U.S.-based copyright industry representatives reported that 52 investigations resulted in 31 indictments. Eighteen of these cases resulted in criminal fines. Twenty-one resulted in jail time; 12 prison terms were suspended; 42 were not suspended.[87]

Export of Counterfeits

The Customs Bureau of the U.S. Department of Homeland Security conducted 3,709 seizures of counterfeit goods, valued at $64 million, originating from China in fiscal year 2005.[88] Products of Chinese origin account for 69 percent of total product seizures at the U.S. border or more than ten times the product seizures of imports from any other trading partner.[89] Still, such seizures at U.S. ports are only a fraction of the actual imports of counterfeit goods. This is partly attributable to the fact that the Department of Homeland Security (DHS) has not placed the seizure of counterfeit goods among its top enforcement priorities. Even so, the value of goods seized by DHS's Immigration and Customs Enforcement (ICE) unit as of April 2006 already had surpassed the total value seized in FY2005, $93 million.[90] The great majority of those items seized were exported by China.

The Commission expects that exports of counterfeit products from China will continue to increase. China previously granted export and import rights only to state-owned trading companies. However, due to its WTO obligations, in July 2004, China amended the law so that any business operator could register to export, eliminating the extra step of using a state-owned company as a middle man, which both legitimate exporters and counterfeiters had to take in order to distribute internationally.[91] This reduces government control and makes it easier for counterfeiters to export their products.

Health and Safety Concerns

China became the world's largest supplier of counterfeit drugs in 2004.[92] The World Health Organization reports that counterfeit pharmaceuticals of Chinese origin cost pharmaceutical companies $32 billion a year.[93] U.S.- and Europe-based multinational companies investigated 400 interlinked websites marketing and selling counterfeit pharmaceuticals, both lifestyle and non-lifestyle drugs, all manufactured in China.[94] Some major pharmaceutical companies are finding so much counterfeit product that they are expanding their testing facilities.[95] Counterfeit pharmaceuticals pose a serious threat because they may vary in content from the legitimate product—or bear no chemical resemblance to it; indeed, they may be composed of toxic materials. Moreover, it is difficult for consumers to determine if the product is counterfeit or not, as the packaging of counterfeit drugs is often identical to the original and consumers may be unaware of the danger.[96]

Counterfeit alcohol, tobacco, and pharmaceuticals appear to have the highest potential for human injury. However, other counterfeit products also cause safety concerns; Chinese counterfeiters have produced batteries that explode because of faulty manufacturing and engine timing belts that break after only one-fifth the time of the authentic product.[97]

U.S. Industry

U.S. companies' investments in China often provide Chinese access to the technologies of U.S. patent holders. Sometimes technology acquired in this way is diverted to China's illegitimate economy.[98] However, foreign direct investment or any other U.S. industry presence is not required for Chinese IP infringement.

> The U.S. Patent and Trademark Office advises that all U.S. businesses that plan to have an Internet presence, international trade show, or other similar exposure, regardless of whether they plan to manufacture or market in China or engage a Chinese entity, should plan carefully to protect their IP from the threat of Chinese piracy.[99]

Market access barriers prevent U.S. companies from entering and serving the Chinese market efficiently. This provides an opportunity for pirates to operate in the market before or in place of U.S. companies.[100] Market access restrictions, such as delays in regulatory approval and restrictions on distribution rights, "artificially limit the availability of foreign content and thus lead consumers to the black market."[101] U.S. movie makers, whose showings are limited to a handful of films allowed into Chinese theaters, are a frequent target of counterfeiters since consumers cannot see the movies on the big screen. Furthermore, industries not permitted to operate independently in China face additional vulnerabilities.

Former Congresswoman Pat Schroeder, current president and CEO of the Association of American Publishers, testified to the Commission that U.S. book publishers conservatively estimate that they lost $52 million in sales in China due to IP theft in 2005.[102] Foreign publishers are not permitted to operate independently in China and each must partner with a local publisher, some of whom are not interested in protecting foreign copyrights and may, in fact, steal the foreign publisher's copyrighted materials. Furthermore, foreign books are often translated into Chinese and sold without permission. College textbook piracy is rampant at Chinese universities; in fact, universities often photocopy textbooks to sell to the students. Schroeder stated that U.S. publishers could compete with Chinese publishers at a fair price if they were permitted to publish independently in China. However, because of the local partner requirements, U.S. publishers must rely on their Chinese partners to import books, and the cost is far higher.

Chinese enforcement against piracy often consists of merely destroying end products such as pirated DVDs or books, but not removing, confiscating, or destroying the production equipment. The result is that pirates often resume production rapidly after seizure of their current inventory.

Some multinational corporations tolerate a certain level of IP infringement to operate in China, often without publicly complaining for fear of being shut out of the China market.[103] For example, one multinational corporation has thanked the Chinese government for its improvements in IP protection, while at the same time the company's managers in China are grappling with a multi-billion-dollar-a-year loss due to Chinese infringement. Nevertheless, multinational corporations continue to invest in research and development facilities located in China. At the same time, some of these companies that operate in the United States do not provide sufficient data to the U.S. government to enable it to work on behalf of their IP interests in world bodies such as the WTO.

This type of corporate behavior allows the Chinese government to hide behind cosmetic changes to its IPR protection laws and enforcement procedures while undertaking no significant changes.[104] During their fact-finding trip to China in June, the Commission witnessed the consequences of such behavior to some multinational corporations. To battle the growing wave of counterfeiting, one U.S.-based consumer products company was forced to hire private investigators to bring cases to court, only to find that the fines levied on violators were hardly more than an annoyance for counterfeiters who were back in business the next day.

For small and medium-sized enterprises, intellectual property theft can be devastating. This sector is critical to America's innovation-rich economy. Pat Choate of the Manufacturing Policy Project recounted to the Commission his estimate that 45 percent of all U.S. inventions are the products of small and medium-sized enterprises, individual inventors, universities, or research institutions.[105] "Increasingly, counterfeiters are targeting American small and medium-sized enterprises and thereby seriously undermining their ability to compete in global markets."[106]

At present, there are no established means whereby U.S. importers can be confident that they are not importing counterfeit goods from China and therefore may be incurring liability. According to Dr. Choate's testimony, placing liability on the importer of record could decrease the likelihood that counterfeit goods can enter and be sold in the United States.[107] He told the Commission that such a measure would serve three important purposes: it would combat piracy by reducing its profitability; it would increase protection for Americans from catastrophic failures of sensitive counterfeit goods such as auto and aircraft parts and pharmaceutical products, and from the economic costs of other counterfeit failures; and it would substantially reduce the potential of costly liability claims against American firms when their products have been counterfeited and subsequently have failed to meet legal or warranty obligations.

U.S. Government Efforts

The lack of intellectual property protection has been a frequent topic of conversation during meetings of the U.S.-China Joint Commission on Commerce and Trade. Chinese authorities have given U.S. officials repeated assurances that they are strengthening laws, regulations, and penalties pertaining to intellectual piracy. But Chinese officials have not been able to point to any decrease in violations or even an increase in the penalties assessed on violators.

The most recent meeting of the Joint Commission in April 2006 secured China's most specific promise to date on protection for business software. The Chinese government pledged that future regulations would require computer manufacturers to pre-load computers with authentic operating system software. Government ministries would be required to purchase only computers that were pre-loaded with legal operating systems. Until now, most Chinese computers sold domestically had not been preloaded with software operating systems. This encouraged consumers to shop for the lowest-cost operating systems, which invariably are pirated. But by late September 2006, the International Intellectual Property Alliance reported that it had no evidence that the change had been implemented and could find no increase in software sales that could be expected to come from stricter enforcement.[108]

IPR Protection Agreements China Signed with the United States or with the United States and Other Nations

1979

Agreement on Trade Relations Between the United States and China—includes pledge to protect U.S. patents, trademarks, copyrights, and industrial property in China

1980

China's Accession to the World Intellectual Property Organization

1985

China's Accession to the Paris Convention for the Protection of Industrial Property

1989

U.S.-China Memorandum of Understanding on Enactment and Scope of PRC Copyright Law

1992

U.S.-China Memorandum of Understanding on Intellectual Property Rights. China's Accession to the Berne Convention for the Protection of Literary and Artistic Works

1993

Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms

1995

U.S.-China Memorandum of Understanding on Intellectual Property Rights

1996

U.S.-China Memorandum of Understanding on Intellectual Property Rights

2001

China's Accession to the WTO—Agreement on Trade Related Aspects of Intellectual Property Rights

The U.S. Trade Representative, recognizing that much of China's intellectual property protection problem is concentrated in specific areas and that enforcement primarily occurs at the local level, is promising a review of Chinese IPR protection efforts at the provincial level this year. In addition, it is reportedly readying an IPR infringement case against China through the WTO.

> *"Faced with only limited progress by China in addressing certain deficiencies in IPR protection and enforcement, the United States will step up consideration of its WTO dispute settlement options. In addition, the United States will conduct a special provincial review in the coming year to examine the adequacy and effectiveness of IPR protection and enforcement at the provincial level. The goal of this review will be to spotlight strengths, weaknesses, and inconsistencies in and among specific jurisdictions, and to inform next year's Special 301 review of China as a whole."* [109]

The U.S. Trade Representative also is expanding the staff dealing with IPR issues at the U.S. Embassy in Beijing. At its Washington headquarters, the Representative has created a China Enforcement Task Force.[110] The U.S. Patent and Trademark Office stationed an IP attaché in the U.S. Embassy in Beijing and is due to add two additional IP attorneys this year.[111]

The U.S. Government is expanding the tools it offers industry to protect its IP. It permits businesses to record trademarks directly with Customs and Border Protection agents. It is educating small and medium-sized enterprises on how to protect their intellectual property. In 2004, the U.S. Trade Representative and the Departments of Commerce, Justice, State, and Homeland Security established the Strategy Targeting Organized Piracy (STOP) Initiative. STOP provides a visible, accessible point in the Federal Government where businesses can report cases of intellectual property infringement through either the stopfakes.gov website or the STOP! hotline. Since its inception, the stopfakes.gov website has received 1.8 million visits, and in the first quarter of fiscal year 2006 the STOP! hotline received 550 calls.

WTO Dispute Mechanism and Other International Trade Remedies

The WTO dispute settlement mechanism should be a key tool to protect the IPR of U.S. businesses in an era of globalization. But the United States has seldom used this tool to address cases involving China even though, in one of the non-IPR-related cases where it was employed, the process led to a satisfactory conclusion: swift negotiations to end a discriminatory practice by China.

The reluctance of the USTR to use the WTO process to adjudicate disputes about whether China is violating its WTO obligations is partially attributable to weaknesses in the quasi-judicial WTO dispute settlement system itself. But there are other reasons. Some delay is due to the historical preference in the Office of the U.S. Trade Representative for entering into negotiations with the governments of offending nations even before filing a WTO case. Even more important is the Representative's emphasis on building the strongest possible case and enlisting other countries as plaintiffs. This effort has been complicated by the reluctance of U.S.-based businesses with operations in China to provide to the U.S. government necessary evidence of intellectual property infringement in China because of fears that Beijing will withdraw favors and investment incentives from any company bold enough to speak out.

The U.S. Trade Representative currently is developing a WTO complaint based on China's failure to enforce international rules against piracy. In order to minimize the risk of retaliation against individual companies by Chinese authorities, the Representative is working through several industry associations and hopes to collaborate on that case with counterparts from the European Union, Japan, and other trading partners.[112]

Although IPR enforcement may be primarily the province of local or regional officials in China, under WTO rules the central government bears ultimate responsibility for all trade-related matters and, in particular, for the actions (or inactions) of any level of government.[113] The most likely successful WTO case for the United States would be based on Trade Related Aspects of Intellectual Property Rights (TRIPS) Articles 41 and 61, which provide that TRIPS members shall ensure they have effective enforcement procedures against IP infringement.[114] China clearly does not.

In addition to the WTO dispute settlement mechanism, the United States has used other WTO tools to place multilateral pressure on China. Last year, the United States, Japan, and Switzerland made simultaneous requests to China under the TRIPS Agreement to provide information on judicial decisions and administrative rulings related to IP theft.[115] China has failed to provide this information.

SECTION 3: CHINA'S FINANCIAL SYSTEM AND MONETARY POLICIES AND THEIR EFFECTS ON THE UNITED STATES

The Commission shall investigate and report on—

"REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at [Taiwan]), the national budget of the People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability."

"FREEDOM OF EXPRESSION—The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in the areas of economic and security policy."

Key Findings

- China's financial system is an increasingly important element in Beijing's development strategy and its program to preserve internal stability. China's banks serve the nation's development strategy in several key ways. The banks, which are predominantly state-owned or state-controlled themselves, often are called on to make loans to other state-owned enterprises without attention to creditworthiness, collateral, or other typical lending requirements of banks operating in real market-driven economies. Instead, Chinese banks often are expected to grant low interest loans, carry large amounts of defaulted loans on their books, or forgive such debts held by government-owned companies. In a centrally planned economy such as China's, these loans are a device for subsidizing various activities and specific industries that China's power structure favors. The ultimate goal is to preserve internal stability and strengthen the control of the Chinese Communist Party.

- Serious and potentially crippling problems threaten the financial system in China and render it vulnerable to excessive volatility and collapse. These problems include a large number of defaulted bank loans, an underdeveloped stock and bond market, an immature insurance system, poor accounting practices, and excessive government ownership and control over the economy, including a refusal to let the currency be governed by market forces. China cannot fully develop a free-market system until these problems are substantially resolved.
- A financial crisis in China would harm its economy, decrease China's purchase of U.S. exports, and reduce China's ability to fund U.S. borrowing, particularly to cover the U.S. budget deficit. An economic crisis in China has the potential to raise U.S. interest rates, thereby placing major additional costs on U.S. businesses and individual consumers and producing dislocation in the U.S. economy. It also could exacerbate Chinese domestic political tensions in an unpredictable fashion. This is why the condition of China's financial system is of concern to the United States.
- The Chinese government's deliberate undervaluation of the renminbi makes U.S. products more expensive to Chinese consumers who therefore purchase fewer of them. Conversely, China's undervalued currency also makes Chinese products cheaper in the United States, and therefore U.S. consumers purchase more of them. The combination is a major contributor to the record-high and still-growing U.S. trade deficit. The undervalued Chinese currency harms American competitiveness and is also a factor encouraging the relocation of U.S. manufacturing overseas while discouraging investments in U.S. exporting industries.
- There has been so little independent regulation of accounting procedures in China that the health of the entire securities and insurance sectors remains questionable. Chinese officials remain highly reluctant to allow independent and objective assessments of the financial system by foreign auditors and credit rating agencies.
- The ownership of U.S. Treasury securities, government agency bonds, and corporate bonds cannot be easily tracked. Foreign holders of U.S. Treasury securities, including foreign central banks, need not disclose their ownership and are not required to do so either by the United States or by international agencies. The lack of accurate data makes it difficult to predict the effect of a sell-off by any one country of dollar-denominated assets.

Overview

China's financial system is in its most critical transition period, facing a December 11, 2006, deadline to adhere to its extensive World Trade Organization (WTO) commitments to liberalize its financial sector. With some notable exceptions, China appears to have made a good faith effort to comply with its WTO obligations in the banking sector. But creating a strong and sound banking, insurance, and securities sector—from a patchwork of highly-protected, inefficient, state-owned enterprises—is an enormous task. China's banks are filled with IOUs from delinquent borrowers, many of them government-owned or -controlled and unlikely ever to completely repay the loans. Meanwhile, the assets that served as collateral for many loans have failed to hold their value. Bank loans continue to be made for political rather than financial reasons.

The other two legs of the financial system—securities and the system of property, casualty, and life insurance—may be even worse off and therefore contribute to the overall instability of the financial system. Here, too, decisions have been made for non-financial reasons. Equity investments of some insurance companies have been directed to the shares of certain companies with strong government connections, but low or non-existent profits. Another avenue of safe investments relied upon by Western insurance companies—the corporate bond market—is in its infancy in China. Forced instead to rely on low-yielding Chinese bank deposits rather than higher-yielding, private domestic and foreign equities or bonds, Chinese insurance companies apparently have built up insufficient reserves to cover their future liabilities.

The equity ownership rights of individuals in China—and of foreign investors—have been heavily restricted. Chinese citizens have been mostly limited to low-interest-bearing bank accounts. Shares of stock on Chinese exchanges are therefore thinly traded and subject to large price swings. This further discourages such investments by Chinese citizens. Even as China's economy has grown at a near-10 percent rate, the value of publicly traded companies in mainland China generally has been falling, although prices have been on the rise this year.

U.S. investors have also been discouraged from using the Shanghai and Shenzhen stock exchanges. Even foreign financial giants such as Goldman Sachs, Morgan Stanley, and Citigroup have had to go through extensive licensing procedures and approval processes just to invest in Chinese companies. And such investments may be very risky still. There is little transparency in the Chinese mainland stock exchanges or in the companies themselves.

China's financial markets are due for some substantial changes, however. China's WTO accession agreement requires that it open up its financial system to more outside scrutiny and investment, with the phase-in of the new changes to be completed by December 11, 2006. If China complies with its looming deadline, the nation's financial system will experience a liberalization whose scope and speed have seldom been seen before. Only two precedents exist: after the collapse of the Soviet empire, Russia and some of the Central European, former Communist bloc countries underwent a rapid change. Russia's system quickly became a free-for-all and devolved into criminality. Central Europe, whose pre-World War II system was capitalistic, fared much better.

Unfortunately, at the time this report is being finalized, Chinese authorities announced that the opening of Chinese securities firms to partial foreign ownership may be delayed for a year past the December 2006 deadline. This is in contrast to the willingness of authorities in Beijing to allow up to 25 percent foreign ownership of

Chinese banks, and their pledges to allow foreign banks to establish branch offices in China.

The Banks Must Climb Out of a Deep Hole

Of all the changes in the financial system contemplated by the WTO agreement, the Chinese government is most enthusiastic about implementing those relating to banking. Beijing realizes the country must have a stronger banking system to take the economy to the next step in the process of globalization. To help accomplish that, China has already privatized a significant part of its banking sector and has, in some cases, beaten its deadlines for allowing foreign investment in the sector.

Until now, China's banks have been the primary vehicle for financing business investment, and while the securities industry undergoes modernization, banks likely will retain their importance. China's banks have enjoyed a near monopoly on the impressive savings of the private and public sectors—estimated to be as high as 50 percent of GDP. Clearly, a shortage of savings and deposits is not China's banking problem. With a foreign currency reserve of about $1 trillion, the People's Bank of China has the ability to throw the banks a stout lifeline.

Indeed, China has already spent heavily to bail out its banking system, primarily through government purchases of bad loans. A low estimate puts the cost so far at $60 billion since 1998.[116] Another estimate using similar methodology estimates the cost at $95 billion.[117] According to Michael Petit, managing director of Standard and Poor's corporate and government ratings in Asia, the Chinese government may have already spent or committed $400 billion to create a solvent banking system. Still, he says, problem loans represent an additional $500 billion to $650 billion.[118] [119]

A large number of the bad loans originated with the practice of state-owned banks lending almost exclusively to state-owned businesses. Dr. Kellee Tsai, a political scientist at Johns Hopkins University and authority on the Chinese banking system, noted that the government-owned banks were originally established as a reform measure in the 1980s because in prior years, money had flowed directly from the government treasury into the state-owned businesses. "So all the employees within the state banking system were afraid to lend to private entrepreneurs because they thought, 'Well, if they don't repay, I could lose my job; it would be disastrous.' And they weren't trained to evaluate clients according to standard market ways of evaluating creditworthiness. They weren't looking at their credit history and collateral."[120]

In short, yesterday's reform became today's problem. Official Chinese estimates show that nearly 80 percent of the bad loans on the books of Chinese banks are attributable to "conflicts of interest where local governments were the owners of some of the banks and financed unnecessary projects."[121] Standard and Poor's estimates the proportion of loans in default at the end of 2005 was between 20 percent and 25 percent.[122] To some observers, this high level of problem and defaulted loans shows that state control over the banking system is still extensive. "Everybody assumes that China wants to be capitalist and that socialism with Chinese characteristics is really code for capitalism, but it's not," Gordon Chang, author of the book, *The Coming Collapse of China,* told the Commission.[123]

Now, China hopes to tap Western management expertise by allowing partial foreign ownership and participation in its giant banks. The thinking: Western banks will make lending a more rational process without the cronyism and favoritism of the past, and this will improve the performance of the Chinese banks.

But some experts fear that China may not be offering the Western banks enough incentive—a sufficiently large ownership stake—to attract their involvement and enable them to introduce necessary reforms. No single foreign bank can own more than 20 percent of a Chinese bank and total foreign ownership cannot exceed 25 percent. This will be the case even after full implementation of China's WTO commitments. So far, the ownership levels have been too low to allow foreign banks to force reforms and old hands at China's banks have resisted. Chinese banks, for example, have created new positions for loan and risk officers, but they have staffed these new positions with the same employees using the same analytical tools. Under those officers, Chinese banks have amassed non-performing loans which are now equal to 7.5 percent to 9 percent of total bank deposits according to official figures, but may be as high as 25 percent according to Standard and Poor's.[124] (The People's Bank of China reported that total deposits in Chinese banks in December 2004 amounted to 24 trillion renminbi [about $3 trillion].)[125] If Standard and Poor's high estimate is correct, non-performing loans could amount to $750 billion.

China also must prepare for the day when its GDP growth rate dips below nine percent, possibly pushing up the number of defaulted and problem loans, which are now on the decline. As more state-owned enterprises are forced to adopt market-driven business practices, more of them will either fail or reveal their profits to have been illusory. Banks will have to be strong enough to write down those loans and still remain solvent. And as the Chinese securities market grows, banks will lose their monopoly on the depositors who are offered so few alternative opportunities to grow their money in China. But so far, China has not faced up to the challenges posed by the many bad loans held by its banks. In September, the central government decided to exempt more than 2,000 of its worst performing state-owned enterprises from the new bankruptcy law passed only the month before, demonstrating a questionable commitment to dealing with the problem.[126]

To its credit, China has managed to establish a regulatory regime for banking, headed by a central bank modeled on the U.S. Federal Reserve Bank. The People's Bank of China sets short term interest rates and bank reserve requirements, and manages the foreign currency reserves. In spite of this effort, implementation falls short.

The formal banking system is failing entrepreneurs. If China is to move to a free market economy, Chinese entrepreneurs must be able to finance their ventures. This will require a banking system that meets their needs, which they currently do not have. As late as mid-2006, only one percent of the loans from state-owned banks had gone to Chinese entrepreneurs, according to Dr. Tsai. Instead, small businesses rely on a scattered, unregulated, and informal lending system estimated by the People's Bank of China to account for $118 billion or seven percent of GDP.[127] The default rate in this informal system is far lower than it is among the large banks. In the informal system, "Assets will be confiscated, fingers will be taken ... kids will be kidnapped—you name it," Tsai told the Commission. "They have very low [non-performing loan] rates." The size of this informal banking sector is yet another symptom of the inadequacy of the formal banking sector.

The health of Chinese banks is a concern for the United States for several reasons. Their weak state makes the entire Chinese financial system vulnerable in a crisis. A Chinese banking crisis could even imperil the entire Chinese economy, whose growth has accounted for about a quarter of global growth in recent years. Given China's size, the impact of a financial and economic collapse could be global and severe.

In a crisis, as domestic demand dried up, China's export sector would be even more important to the overall economy and could receive even more government support. The financial and political turmoil in China in the spring of 1989, for example, had no effect on China's export sector, which "just continued to hum along as if it were in a separate country."[128] An economic crisis in China would also cut into U.S. exports there, particularly of such capital goods as commercial aircraft, currently among the top U.S. exports to China. Yet the U.S. trade deficit with China might also accelerate since the Chinese export sector would stay strong.

Meanwhile, unemployment in the state-owned sector could be expected to grow with potentially devastating consequences for the population.[129] The social safety net is highly porous. National unemployment benefits do not exist, only about 15 percent of the population is covered by any type of pension, and many of those pensions are underfunded.

Other Problems in the Financial Sector

The other two legs of the financial system stool—stock and bond brokerages and the insurance industry—are in even worse shape than the banks. In theory, the nation's stock exchanges should be facilitating the transition from a state-owned economy to a private, market-based system. But whenever the government hints it is going to sell its holdings in a particular firm, investors try to sell first to avoid the price drop that results from putting up so many shares for sale so quickly. This has been creating volatility and diminishing confidence in the market.

There are structural reasons for the difficulties in the exchanges as well. Unlike the banking system, securities dealers are not welcoming competing, foreign companies to help in the transition. In fact, in September, Chinese regulators announced a one-year suspension of partial sales of brokerages to foreign investors.[130] Even before this suspension, foreigners were limited to joint ventures and ownership was capped at 33 percent.[131] (Among its WTO commitments China pledged to fulfill by December 11, is to increase to 49 percent the proportion of a joint venture a foreign securities company can own.) Thus far, of the $24 billion that foreign investors have expended in buying into financial services companies in

China since 2001, only $600 million has been spent in buying shares of securities firms.[132]

The insular nature of the securities system also makes it vulnerable to rapid price swings and loss of public confidence. It also reduces the effect of regulations. After all, as many as three-quarters of all private financial transactions may be occurring outside the formal financial system, according to one estimate.[133]

In the past few years, China has established a foreign currency market, a commercial paper market, a corporate bond market, and the "back offices" and trading systems to implement them. This infrastructure gives China the potential to continue to liberalize its financial system. Perhaps most important for the United States in the short term, this infrastructure would allow China eventually to adopt a more flexible exchange rate regime. Nevertheless, Beijing has decided not to relax its tight control over the value of the renminbi relative to the dollar.

China has only slightly loosened the controls on its insurance companies to allow them to invest abroad. Without such investment, insurance firms cannot be certain of steady returns that help them to cover their losses and to keep premiums affordable. Domestic stock markets have not proved to be a reliable vehicle for the Chinese insurance companies to hedge their risks.

Foreign insurers face discrimination. They are required to apply for licenses serially while Chinese insurers can apply concurrently. That is, foreign insurers must await approval of one application before applying for another.[134] This is apparently intended to slow the entry of foreign and U.S. firms into the fast-growing Chinese insurance market. It is a clear violation of WTO rules on "national treatment." Insurers are engaged in what they call a "dialogue" with Chinese regulators and say they are making progress on this issue.

Information Flow Is Increasingly Restricted

A free flow of information is essential to the efficient functioning of markets. Information flowing from consumers to producers is what allows the capitalist system to avoid the production bottlenecks and the waste that plague planned economies. But China refuses to recognize this principle and has been enacting ever-larger barriers to the free flow of information.

Chinese regulators have sought to prevent independent credit rating agencies such as Standard & Poor's, Moody's, and Fitch from establishing operations in China. The work of such credit rating agencies is essential. They evaluate the underlying risk of bond issuers and therefore impose discipline on the borrowing companies that know that drops in their ratings will lead to higher borrowing costs. This helps keep the system honest and understandable and avoid nasty surprises.

But Chinese authorities want to limit foreign credit rating agencies to a minority stake in joint ventures, which would reduce their independence and credibility. Even worse, regulators want to use their licensing authority to control the hiring of credit analysts and their various activities. Trying to control the flow of any negative news would render the credit rating system useless and make it extremely difficult for all investors to make informed choices. A compromised credit rating agency system, by obfuscating potential problems, increases the chance a small event will turn into a financial crisis, with cascading effects both within and outside China.

The testimony to the Commission of representatives from Standard and Poor's, one of the major credit rating agencies, was instructive. The company has been active in China since 1991, evaluating the credit-worthiness of Chinese government debt and its issuance of U.S.-denominated sovereign debt by the central government. The company has maintained an office in Beijing since 2005, but is allowed to issue ratings on Chinese companies only from its Hong Kong office.[135] This is in marked contrast to such other Asia-Pacific nations as Japan, Singapore, and Australia, which understand and support the market function of independent ratings agencies. Further hampering the establishment of an independent ratings system are the competition and confusion among four regulatory bodies that claim jurisdiction over rating agencies operating in China.

In addition to restrictions on rating agencies, China has moved aggressively to limit dissemination of news and financial information by foreign news media. In September, China's government issued strict curbs on the dissemination of news in China. In particular, international financial information companies such as Reuters Group PLC and Bloomberg LP are prohibited from selling their information and financial news directly to Chinese customers such as banks and brokerages.[136]

The new restriction, issued by China's official Xinhua news agency, seems designed to accomplish two goals: the first of these is to bring foreign news agencies under the control of Chinese government authorities, a continuation of China's efforts to limit independent dissemination of news within China, particularly news that points up government mismanagement, civil unrest, and man-made and natural disasters. The new restriction makes it illegal to distribute articles that "undermine China's national unity, sovereignty, and territorial integrity" and that "endanger China's national security, reputation and interests." The restrictions also are intended to persuade foreign news media to avoid politically sensitive subjects such as corruption of government officials, and the activities of civil rights associations and leaders on behalf of the Chinese people when their interests conflict with those of the government.

China Manipulates its Currency to Gain a Trade Advantage

China's policies on trade and investment depend directly on the government's strict control of the value of the renminbi.[137] Rather than allow the nation's currency to seek its own value in the international currency markets, the People's Bank of China dictates the value of the renminbi and allows only small fluctuations. The central bank requires that dollars entering the country be traded for renminbi at a rate of about 8 renminbi to one dollar. By artificially setting the renminbi at a value that most economists believe amounts to a 15 percent to 40 percent discount against the dollar, China provides its exporters with an equivalent price discount.[138] This practice violates both the letter and the spirit of the rules of the WTO and the International Monetary Fund, which prohibit the manipulation of currency values in order to secure a trade advantage.

This practice harms U.S. companies in a variety of ways and distorts the trading relationship between the United States and China. The policy attracts foreign investment to manufacturing in China by automatically discounting the purchase price of Chinese land, machinery, construction costs, and manufacturing inputs. The exercise also puts competing U.S.-based manufacturers at a disadvantage by making their exported products more expensive to Chinese consumers. American small and medium-size enterprises are particularly disadvantaged by having to compete for U.S. market share with Chinese exporters who enjoy the subsidy of an artificially undervalued renminbi. Smaller U.S. companies often don't have the cash, credit, experience, or willingness to shift large amounts of capital abroad. So many of the smaller U.S.-based manufacturers find themselves competing for American customers with the large multinational corporations now producing at a discounted rate in China.

This practice is "export-led growth with a vengeance," according to C. Fred Bergsten, president of the Institute for International Economics.[139] China's surplus, according to Bergsten, "is an off-budget job and development subsidy which enables them to under-price their products in world markets, and thereby enables them to export some of their unemployment to the rest of the world."

This emphasis on export earnings puts Chinese citizens—although not the companies—at a disadvantage. The standard of living of Chinese citizens is below what it would be if Chinese firms produced goods for domestic consumption.[140] Additionally, because the Chinese government has been dismantling the social safety net previously provided by state-owned and state-controlled companies, Chinese workers must now save money for their retirement and health care; pension plans and health insurance cover less than 20 percent of the population. Expanded government programs in such areas as education and health care could allow Chinese workers to save less of their income and to consume more, leading to more domestic-led GDP growth. Instead, government and business savings, as well as household savings, have been on the rise.

A secondary effect of China's policy of currency manipulation is the huge and growing trade surplus accruing between China and the rest of the world. China now enjoys the largest current account surplus in the world, a position held by Japan until 2006.[141] That surplus has helped push Chinese foreign exchange reserves beyond $900 billion and on a path to break the $1 trillion mark this year. If China were to allow its currency to move toward a market-driven level, many economists expect that the growing imbalances would decline. If the dollar and other currencies decline in relation to the renminbi, investing in China would become more expensive for foreigners, as would the purchase by foreigners of Chinese raw materials, parts, machinery, and other inputs. This would lead to less foreign investment in China relative to other destinations. After a period of adjustment, it is reasonable to assume that China's trade surplus—and the trade deficit of the United States—would decline, although few economists have undertaken the empirical research necessary to quantify the dollar estimate of this decline.[142]

The U.S. Treasury Department has argued that it would be in China's interest to allow the value of the renminbi to be set by market forces rather than central government fiat. China has begun to acknowledge that its projected 11 percent GDP growth rate this year is not sustainable and has taken some steps to cool the economy. For example, Chinese authorities have issued tighter banking regulations in an effort to reduce speculation in commercial and industrial real estate. Authorities are increasingly concerned that too few people in China receive benefits from an export-led boom dominated by foreign multinationals. The already-substantial economic inequality is increasing between the coastal, urban elite and the rural dwellers who make up 45 percent of China's population. Because of China's export-oriented industrial policy, of which the renminbi valuation policy is a key part, many in China cannot consume the very products that their factories are producing. Meanwhile, cheaper imported goods are kept out of the market by the policy of keeping the renminbi at such a low value. In spite of these and other arguments that favor allowing the renminbi to reach a more market-oriented value, Chinese economic officials have said they prefer to emphasize stability.[143]

Possible Effects on the Overall U.S. Economy

The United States will run a current account deficit of over $800 billion, or approximately seven percent of GDP, in 2006. This is historically an extremely high level that no other country has ever been able to sustain for any significant period. The danger is that the U.S. economy could suffer a precipitous decline if the ability of the United States to borrow ever greater amounts should end abruptly. Interest rates and inflation might suddenly soar as the dollar fell and the stock market crashed.[144]

For now, however, the effect on the U.S. economy of the huge purchases of U.S. Treasury, government agency, and corporate bonds by China and other East Asian countries was summed up this way by Dr. Bergsten; "It's great to live on those credit cards, as long as nobody calls in the balances." Another witness, University of Maryland economist Peter Morici, added up the consequences to the U.S. economy, some of which are beneficial in the short term, but all worrisome over the long term: currently, interest rates are lower than they would be without China's purchases of U.S. debt instruments. The rate of growth is therefore higher in some sectors, said Morici, but employment and wages in the United States are lower than they would be otherwise.[145] Francis E. Warnock, an economist at the University of Virginia, said in written testimony submitted to the Commission that it is reasonable to assume that interest rates in the United States are up to one-and-a-half percentage points lower than they otherwise would be without the lending from China.[146]

In one sense, economists are still feeling their way through the discussions of these huge imbalances and the potential for rapid shifts in the value of the dollar. The size of today's trade imbalance is nearly unprecedented; large amounts of currency are sent across the globe nearly instantaneously, thanks to computerized trading. This new, virtual, paperless trading floor complicates America's ability to track and manage certain aspects of its finances. For example, little is known about the amount of Chinese investments in U.S. bonds because U.S. statistical agencies don't require bond holders or bond issuers to disclose such information. Furthermore, many bonds are held on behalf of investors by third parties, often in tax havens such as the Cayman Islands. This much is known, however: Chinese investors primarily engage in portfolio investments and not in direct investing, such as the outright purchase of U.S. companies, factories, or commercial real estate.[147]

While some U.S. officials cite a precipitous sell-off of the dollar as one of their biggest worries, most experts believe this is an unlikely scenario. One reason: this would cause the People's Bank of China's bond portfolio to collapse in value as well. It is far more likely that China's central bank, along with other Asian central banks, will diversify its holdings away from the dollar rather than rush them to market. As long as such a shift occurs slowly, U.S. capital markets will adapt with only a minimal impact on the real economy. Regardless, the United States would be able to better predict potential problems resulting from the movement of foreign capital invested in the U.S. economy if there were tracking systems better suited to monitor how individual countries invest in the United States.

RECOMMENDATIONS

Currency manipulation

- The Commission recommends that Congress urge the Administration to take to the World Trade Organization (WTO) and the International Monetary Fund (IMF) a complaint about China's manipulation of its currency. This manipulation contravenes both the letter and the spirit of WTO rules and the IMF charter.
- The Commission recommends that Congress pass legislation to modify the requirements of the Treasury Department's biannual report on countries that practice currency manipulation, by making it clear that countries that artificially peg their currency in order to gain an export advantage should be identified as violating the principles of international trade. The Commission also recommends that Congress eliminate the requirement that a country must be running a global trade surplus to be designated a currency manipulator.[1]
- The Commission recommends that Congress enact legislation to define currency manipulation and loan forgiveness as illegal export subsidies subject to countervailing duty penalties levied against an offending country's exports.
- The Commission recommends that Congress pass legislation to allow the U.S. Department of Commerce to impose countervailing duties against non-market economy subsidies. (Although current U.S. practice does not allow such duties to be imposed against non-market economies, such actions are permitted by the WTO.)

[1] China currently is running a large global current account surplus. The International Monetary Fund estimates China's global current account surplus will be $184 billion in 2006, having surged from $68.7 billion in 2004 and $160.8 billion in 2005. In the 1990s, however, China ran far smaller surpluses and even a deficit in 1993. This recommended change would allow the Treasury Department to designate China as a currency manipulator even during a year when China's current account is in balance or in deficit.

Accounting integrity

- The Commission recommends that Congress direct the Treasury and Commerce Departments to examine how the collection of data regarding foreign investment in the United States can be improved, placing particular emphasis on the feasibility of tracking how foreign central banks invest their reserves in dollar denominated assets.
- The Commission recommends that Congress encourage the executive branch to protest any Chinese restrictions on the free flow of financial information.
- The Commission recommends that Congress urge the executive branch to open negotiations with China to secure approval for foreign credit reporting agencies to provide uncensored ratings of all Chinese securities, and to obtain Chinese central government agreement that Chinese regulators will drop licensing and regulatory requirements that dictate criteria for the hiring of ratings analysts.

Dispute resolution

- The Commission recommends that Congress urge the U.S. Trade Representative to press ahead aggressively with a WTO case against China for its manifest failures to enforce intellectual property rights, selecting the best of many potential cases in order to establish a strong precedent, and that Congress urge the U.S. Trade Representative to enlist other nations to join in the case.
- The Commission recommends that Congress monitor the recent steps taken to strengthen and enlarge the international trade law enforcement office within the Office of the U.S. Trade Representative and, if the Representative needs additional resources to investigate and prosecute dispute settlement cases before the WTO, that Congress provide those resources.
- The Commission recommends that Congress direct the Administration to increase the number of intellectual property attachés in China from the Office of the U.S. Trade Representative, the U.S. Patent and Trademark Office, and the Departments of State, Commerce, Justice, and Homeland Security, and provide sufficient funding to the parent agencies to support these additional attachés.

Fair trade

- The Commission recommends that Congress urge the U.S. Trade Representative to strengthen its annual review of China's compliance with WTO rules by adding conclusions and recommendations to its report. (Congress instituted the requirement that the Representative prepare this report when it granted China permanent normal trade relations as part of China's admission to the WTO.)

Criminal penalties for intellectual property rights violations

- The Commission recommends that the U.S.-China Interparliamentary Exchange raise with the National People's Congress the need to lower the threshold for criminal prosecutions of Chinese intellectual property rights violation cases.

ENDNOTES

1. In 2003, China surpassed Japan to become the third largest trading partner. In 1999, China surpassed Germany to become the fourth largest trading partner.
2. This is a 20 percent increase in exports and 24 percent increase in imports over 2004. Also, it is a 118 percent increase in exports and 138 percent increase in imports since 2001, the last trading year before China's WTO accession. U.S. Commerce Department, *Country and Product Trade Data,* www.census.gov/foreign-trade/statistics/country/index.html.
3. USCC calculations based on U.S. Commerce Department data.
4. The International Monetary Fund estimates China's current account surplus will be $184 billion in 2006 and Japan's will be $167 billion. China's surplus in the first half of 2006 was $92 billion. China's current account surplus is expected to reach $206 billion in 2007. The IMF estimates the U.S. current account deficit in 2006 to be $869 billion.
5. This reference to foreign-invested enterprises, based on China's Ministry of Commerce figures, refers to China-based, foreign business enterprises that are independent of any state ownership. Ministry of Commerce (PRC), *Exports by Type of Enterprises (2005/01-12).* english.mofcom.gov.cn/aarticle/statistic/ie/200603/200603 01722205.html.
6. AmCham-China, *White Paper 2006: Enhancing Dialogue, Moving Forward*, May 2006, p. 34.
7. U.S. Chamber of Commerce, *Countering Global Counterfeiting and Piracy*, Summer 2006.
8. Ted Fishman, "How to Stop Intellectual Property Theft in China," *Inc. Magazine*, June 2006. www.inc.com/magazine/20060601/ip-theft.html.
9. See U.S. Senate Committee on Finance, *Hearing on U.S.-China Economic Relations Revisited*, testimony of C. Fred Bergsten, March 29, 2006. Also, Morris Goldstein and Nicholas R. Lardy, "A New Way to Deal with the Renminbi," *Financial Times*, January 20, 2006. Also, China Currency Coalition, "Fact Sheet" chinacurrencycoalition.org/pdfs/0405—factsheet.pdf.
10. Peter S. Goodman, "Foreign Currency Piles Up in China?" *The Washington Post*, January 17, 2006, p. D-1.
11. U.S. Trade Representative, *2006 National Trade Estimate; Foreign Trade Barriers,* (Washington, DC: March 2006), p. 92.
12. U.S. Trade Representative, *2006 Special 301 Report,* (Washington, DC: April, 2006), p 1.
13. U.S. Trade Representative, *U.S.-China Trade Relations: Entering a New Phase of Greater Accountability and Enforcement,* (Washington, DC: February, 2006), p. 8.
14. China agreed to an official designation as a non-market economy during negotiations with the United States. "Non-market economies" are economies whose labor, prices, production, and investment are controlled or substantially controlled by the government. Designating China a non-market economy makes it easier to bring antidumping cases against Chinese exports and allows the United States to impose higher tariffs to counter sudden import surges, but the United States has declined to exercise these abilities.
15. World Trade Organization, *Trade Policy Review: People's Republic of China,* (Geneva: February 2006), p. ix.
16. U.S. Trade Representative, *U.S.-China Trade Relations: Entering a New Phase of Greater Accountability and Enforcement,* (Washington, DC: February, 2006), p. 17.
17. U.S. Trade Representative, *2006 National Trade Estimate; Foreign Trade Barriers,* (Washington, DC : March 2006), p. 95.
18. U.S. Trade Representative, *U.S.-China Trade Relations: Entering a New Phase of Greater Accountability and Enforcement,* (Washington, DC: February, 2006), p. 9.
19. U.S.-China Economic and Security Review Commission, *Hearing on China's WTO Compliance and Industrial Subsidies,* testimony of Timothy Stratford, April 4, 2006.

20. U.S. Trade Representative, *2006 National Trade Estimate; Foreign Trade Barriers,* (Washington, DC: March 2006), p. 92.

21. Portion of the Draft of the 11th Five-Year Plan—"Tuiji Gongye Jiegou Youhua Sengji," ("Promote the Optimization and Upgrading of Industrial Structure"), March 16, 2006. www.china.com.cn/chinese/news/1156676.htm.

22. World Trade Organization, *Trade Policy Review: People's Republic of China,* (Geneva: February 2006), p. xiii.

23. World Trade Organization, *Trade Policy Review: People's Republic of China,* (Geneva: February 2006), p. xii.

24. U.S. Trade Representative, *2005 Report to Congress on China's WTO Compliance,* (Washington, DC: December 11, 2005), p. 38.

25. U.S. Trade Representative, *2005 Report to Congress on China's WTO Compliance,* (Washington, DC: December 11, 2005), p. 39.

26. U.S. Trade Representative, *2005 Report to Congress on China's WTO Compliance,* (Washington, DC: December 11, 2005), p. 6.

27. U.S.-China Economic and Security Review Commission, *Hearing on China's WTO Compliance and Industrial Subsidies,* testimony of Loren Yager, April 4, 2006.

28. That is, firms owned and controlled by foreign-based investors or foreign-based parent companies.

29. According to MOFCOM, in 2005 foreign-funded enterprises accounted for $444 billion and SOEs accounted for $169 billion of the total value of exports ($762 billion). english.mofcom.gov.cn/aarticle/statistic/ie/200603/20060301722205.html.

30. National Bureau of Statistics (PRC), *Statistical Communiqué of the People's Republic of China,* February 28, 2005. www.stats.gov.cn/enGliSH/newrelease/statisticalreports/t20050228__402231957.htm.

31. MOFCOM, *Import and Export Mix,* March 16, 2006. english.mofcom.gov.cn/aarticle/statistic/ie/200603/20060301696922.html.

32. U.S.-China Economic and Security Review Commission, *Hearing on China's WTO Compliance and Industrial Subsidies,* testimony of Alan Price, April 4, 2006.

33. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Michael Petit, August 22, 2006.

34. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Kellee Tsai, August 22, 2006.

35. International Confederation of Free Trade Unions, *Internationally Recognized Core Labor Standards in the People's Republic of China: Report for the WTO General Council Review of the Trade Policies of the People's Republic of China,* April 4&6, 2006.

36. International Confederation of Free Trade Unions, *Internationally Recognized Core Labor Standards in the People's Republic of China: Report for the WTO General Council Review of the Trade Policies of the People's Republic of China,* April 4&6, 2006.

37. First Global Conference on Combating Coutnerfitting, May 25-26, 2004, cited in U.S. Chamber of Commerce, *Countering Global Counterfeiting and Piracy*, Summer 2006, p.6.

38. Ted Fishman, "How to Stop Intellectual Property Theft in China," *Inc. Magazine*, June 2006. www.inc.com/magazine/20060601/ip-theft.html.

39. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document__Library/Reports__Publications/2005/2005__Special__301/asset__upload__file195__7636.pdf .

40. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document__Library/Reports__Publications/2005/2005__Special__301/asset__upload__file195__7636.pdf.

41. Department of Homeland Security, U.S. Customs and Border Protection, and U.S. Immigration and Customs Enforcement, *FY2005 IPR Seizure Statistics*, p.5. www.cbp.gov/xp/cgov/import/commercial__enforcement/ipr/seizure/fy05__midyear__stats.ctt/fy05__ipr__midyear. pdf.

42. "counterfeit drugs cost the global pharmaceutical industry US$32bn a year . . . a significant proportion of these counterfeits originate in China." PriceWaterhouseCoopers, *Investing in China's Pharmaceutical Industry*, March 2006, p.5. www.pwchk.com/home/webmedia/632785588008556096/ts__invest__pharm__mar2006.pdf.

43. Senate Committee on Commerce, Science and Transportation, *Piracy and Counterfeiting in China*, testimony of Franklin J. Vargo, March 8, 2006.

44. Wayne M. Morrison, *China-US Trade Issues*, (Congressional Research Service Washington DC: May 16, 2006), p. 10. www.usembassy.at/en/download/pdf/china__trade.pdf.

45. Central Intelligence Agency, *World Factbook*. www.cia.gov/cia/publications/factbook/geos/ch.html. The Ministry of Commerce of the People's Republic of China reported a $2.3 trillion GDP for 2005. English.mofcom.cn/aarticle/topic/bizchina/macroeconomy/200608/20060802933465.html.

46. Business Software Alliance, *Third Annual BSA and IDC Global Software Piracy Study,* May 2005, p. 4. www.bsa.org/globalstudy/upload/2005-2006%20Global%20Piracy%20Study.pdf.

47. The American Chamber of Commerce in the People's Republic of China, *White Paper 2006: Enhancing Dialogue, Moving Forward*, (Beijing: May 2006), p. 34.

48. Wayne M. Morrison, *China-US Trade Issues*, (Congressional Research Service Washington DC: May 2006), p. 10. www.usembassy.at/en/download/pdf/china—trade.pdf. Central Intelligence Agency, *World Factbook*. www.cia.gov/cia/publications/factbook/geos/ch.html. The Ministry of Commerce of the People's Republic of China reported a $2.3 trillion GDP for 2005. english.mofcom.gov.cn/aarticle/topic/bizchina/macroeconomy/200608/20060802933465.html.

49. First Global Conference on Combating Coutnerfitting, May 25–26, 2004, cited in U.S. Chamber of Commerce, *Countering Global Counterfeiting and Piracy*, Summer 2006, p.6.

50. U.S. Patent and Trademark Office, *USPTO Small Business Campaign FAQ*. www.uspto.gov/smallbusiness/pdfs/USPTOSmallBusinessCampaignFAQ.pdf.

51. Ted Fishman, "How to Stop Intellectual Property Theft in China." *Inc. Magazine*, June 2006. www.inc.com/magazine/20060601/ip-theft.html.

52. House Committee on Ways and Means, *Hearing on United States-China Economic Relations and China's Role in the World Economy*, testimony of Jay Berman, April 14, 2005.

53. U.S. Trade Representative, *2006 Special 301 Report,* p. 17. www.ustr.gov/assets/Document__Library/Reports__Publications/2005/2005__Special__301/asset__upload__file195__7636.pdf .

54. State Science and Technology Commission [People's Republic of China], *The National Medium- and Long-Term Science and Technology Development Program*, January 1, 1992, FBIS ID: FTS19920101000034. www.opensource.gov.

55. 863 Program technologies: biotechnology, space technology, information technology, laser technology, automation technology, energy technology and advanced materials

56. *Guide to China's Science and Technology Policy: White Paper on Science and Technology No.6*, (Beijing: August, 1995), FBIS ID: FTS19950801000840. www.opensource.gov.

57. *863 Jihua de Zhengce Cuoshir he Zuzhi Guanli, (863 Program's Special Operational Policy Measures Organization Management)*. www.863.org.cn/863__105/863brief/863introduction/200405080288.html. See also Ministry of Science and Technology [People's Republic of China], "R&D and innovation in China," in "Journal Examines R&D Development, Innovation in China," *Asia Pacific Tech Monitor*, May 1, 2006 - June 30, 2006. FBIS ID: SAP20060822386005. www.opensource.gov.

58. The 973 Program focuses particularly on outreach for international cooperation. One example of successful cooperation under this program is the EU-China agreement to officially declare 2007 "The China-EU Science & Technology Year," the goal of which is to successfully increase investment and exchange of expertise in R&D.

59. State General Administration for Quality Supervision and Inspection and Quarantine of the People's Republic of China (AQSIQ) and the Certification and Accreditation Administration of the People's Republic of China (CNCA).

60. China Quality Certification Centre, *Regulations for Compulsory Product Certification*, 2002. www.ul-asia.com/cma/Download/Rules__and__Regulations/regulation__for__CCC__mark__e.pdf.

61. China Quality Certification Centre, *CQC Banfa he Renke CB Ceshi Zhengshu de Guize Chengxu (CQC Certification Rules and Procedures for CB Testing and Approval)*, 2004. www.cqc.com.cn.

62. In the United States, according to the Society for Competitive Intelligence Professionals, competitive intelligence is "systematic and ethical program for gathering, analyzing, and managing external information that can affect your company's plans, decisions, and operations." In this sense, competitive intelligence is distinguished from industrial espionage by an adherence to applicable laws. As the term is used in China, this distinguishing line is blurred or erased, depending on the situation.

63. Society for Competitive Intelligence in China. www.scic.org.cn. NORINCO is the China North Industries Company. It has been sanctioned several times by the U.S. government for proliferation to Iran. Further information on this company can be found in Chapter 2.

64. Luo Jianbin, "Newspaper Calls on PRC Companies to Strengthen Competitive Intelligence Gathering," *Keji Ribao (Science and Technology Daily)*, Chinese Academy of Sciences, November 16, 2001. FBIS ID: CPP20011116000150. www.opensource.gov.

65. Zhao Gang, "Chongshi Jianshe Guojia Jingzheng Qingbao Tixi" ("Pay Attention to the National Competitive Intelligence System"), *Zhongguo Quangye Touzi yu Gao Keji (China's venture capital and high tech)*, 2004. www.softscience.gov.cn/view_info_download.jsp?INFOID=9824.

66. Zhao Gang, "Chongshi Jianshe Guojia Jingzheng Qingbao Tixi" ("Pay Attention to the National Competitive Intelligence System"), *Zhongguo Quangye Touzi yu Gao Keji (China's venture capital and high tech)*, 2004. www.softscience.gov.cn/view_info_download.jsp?INFOID=9824.

67. Luo Jianbin, "Newspaper Calls on PRC Companies to Strengthen Competitive Intelligence Gathering," *Keji Ribao (Science and Technology Daily)*, Chinese Academy of Sciences, November 16, 2001. FBIS ID: CPP20011116000150. www.opensource.gov.

68. "chai jie" — disassemble and solve [the puzzle].

69. State Intellectual Property Office [People's Republic of China], *Zhishi Chanquan Zhanlue Juesheng Qiye Zhishe Zhanyi (Intellectual Property Strategy Winning Enterprise Knowledge Campaign)*, October 18, 2005. www.sipo.gov.cn/sipo/ztxx/zscqbft/zgqyyipzl/200605/t20060531_101434.htm.

70. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow, June 8, 2006.

71. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimonies of Daniel C. K. Chow and Neil Livingstone, June 8, 2006.

72. Consulate General of the People's Republic of China in Cape Town. capetown.chineseconsulate.org/eng/qwkj/t234800.htm.

73. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow, June 8, 2006.

74. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf .

75. Dexter Roberts, et al, "China's Pirates," *Business Week Online*, June 5, 2000. www.businessweek.com/2000/00_23/b3684007.htm.

76. Senate Committee on Homeland Security and Governmental Affairs Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, *Hearing on Pirates of the 21st Century: The Curse of the Black Market*, testimony of Professor Daniel CK Chow, April 20, 2004. www.senate.gov/govt-aff/_files/042004chow.pdf.

77. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Timothy Stratford, June 8, 2006.

78. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow, June 8, 2006.

79. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Edward Jung, June 8, 2006.

80. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimonies of Jay Berman, Myron Brilliant, and Daniel C. K. Chow, June 8, 2006.

81. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf.

82. Australian Chamber of Commerce and Industry, *China FTA — Need for Progress on Intellectual Property Rights*, January 2006, p.4. www.acci.asn.au/text_files/issues_papers/Trade/January%2006%20-%20China%20FTA.pdf.

83. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

84. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

85. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

86. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

87. International Intellectual Property Alliance, *Response to Request for Public Comment on Out-Of-Cycle Review of the People's Republic of China*, February 9, 2005. p. 18. www.iipa.com/rbc/2005/CHINA%202005__Feb9__PRC__OCR__Submission.pdf.

88. Department of Homeland Security, U.S. Customs and Border Protection, and U.S. Immigration and Customs Enforcement, *FY2005 IPR Seizure Statistics*, p.5. www.cbp.gov/xp/cgov/import/commercial__enforcement/ipr/seizure/fy05__midyear__stats.ctt/fy05__ipr__midyear. pdf.

89. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document__Library/Reports__Publications/2005/2005__Special__301/asset__upload__file195__7636.pdf.

90. Jonathan Marino, "DHS agencies fight uphill battle against counterfeiting," *GovExec.com*, April 26, 2006. www.govexec.com/dailyfed/0406/042606j1.htm.

91. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow, June 8, 2006.

92. Wertheimer, Santella, Chaney, "Counterfeit Pharmaceuticals — Update on Current Status and Future Projections," *Business Briefing: Pharmagenics 2004*, October, 2004, p. 32. www.touchbriefings.com/pdf/955/Wertheimer.pdf.

93. PriceWaterhouseCoopers, *Investing in China's Pharmaceutical Industry*, March 2006, p.5. www.pwchk.com/home/webmedia/632785588008556096/ts__invest__pharm__mar2006.pdf.

94. May 17, 2006 phone conversation with Robert Moore, Merck Pharmaceuticals.

95. David Greising and Bruce Japsen, "Pharmaceutical companies feeling potent effect of fakes," *Chicago Tribune*, November 20, 2005.

96. Wertheimer, Santella, Chaney, "Counterfeit Pharmaceuticals — Update on Current Status and Future Projections," *Business Briefing: Pharmagenics 2004*, October, 2004. p.32. www.touchbriefings.com/pdf/Wertheimer.pdf.

97. Senate Committee on Commerce, Science, and Transportation, *Hearing on Piracy and Counterfeiting in China*, testimony of Franklin J. Vargo, March 8, 2006.

98. Senate Committee on Homeland Security and Governmental Affairs Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, *Hearing on Pirates of the 21st Century: The Curse of the Black Market*, testimony of Professor Daniel CK Chow, April 20, 2004. www.senate.gov/govt-aff/__files/042004chow.pdf.

99. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

100. House Committee on Ways and Means, *Hearing on United States-China Economic Relations and China's Role in the World Economy*, testimony of Jay Berman, April 14, 2005.

101. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document__Library/Reports__Publications/2005/2005__Special__301/asset__upload__file195__7636.pdf.

102. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Patricia Schroeder, June 8, 2006.

103. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow and Andrew Mertha, June 8, 2006.

104. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Daniel C. K. Chow, June 8, 2006.

105. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Pat Choate, June 8, 2006.

106. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Myron Brilliant, June 8, 2006.

107. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Pat Choate, June 8, 2006.

108. Trade Policy Staff Committee, *Hearing on China's Compliance with its WTO Commitments*, Testimony of Maria Strong, September 28, 2006.

109. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf.

110. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Tim Stratford, June 8, 2006.

111. U.S. Patent and Trademark Office, "Protecting and Enforcing Your Intellectual Property in China," *Conference on Intellectual Property in the Global Marketplace*, presentation by Thomas Sydnor, July 18, 2006.

112. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Tim Stratford, June 8, 2006.

113. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Terry Stewart, June 8, 2006.

114. U.S.-China Economic and Security Review Commission, *Hearing on Intellectual Property Rights Issues and Counterfeit Goods*, testimony of Justin Hughes, June 8, 2006.

115. U.S. Trade Representative, *2005 Special 301 Report*. www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf.

116. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Gordon Chang, August 22, 2006.

117. Charlene Chu, "The Chinese banking System," *Fitch Country Report,* June 2006, p. 8.

118. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Michael Petit, August 22, 2006.

119. Official statistics from the China Banking Regulatory Commission put the total for non-performing loans in the commercial banking sector at 1.28 trillion renminbi or 7.5 percent of all loans in the first half of 2006. S&P estimates the total to be much higher, between 3.97 trillion renminbi and 5.16 trillion renminbi. Fitch Ratings puts the total at 3.78 trillion renminbi and Ernst & Young estimated the total at 7.15 trillion—more than $900 billion—last May, although the firm later agreed to review its estimate after PRC protests.

120. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Kellee Tsai, August 22, 2006.

121. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Michael Petit, August 22, 2006.

122. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Michael Petit, August 22, 2006.

123. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Gordon Chang, August 22, 2006.

124. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Michael Petit and Kellee Tsai, August 22, 2006.

125. People's Bank of China, *Sources and Uses of Credit Funds of Financial Institutions.* www.pbc.gov.cn/english/diaochatongji/tongjishuju/gofile.asp?file=2004S1.htm.

126. Francesco Guerrera, "Bankruptcy Reprieve for China Firms," *The Australian,* September 26, 2006. wwwtheaustralian.news.com.au.

127. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Kellee Tsai, August 22, 2006.

128. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Gordon Chang, August 22, 2006.

129. Matthew Forney, "Workers' Wasteland," *Time Magazine Asia Edition.* www.time.com/time/asia/covers/1101020617/cover.html.

130. "Great Stall of China" *The Financial Times,* September 15, 2006.

131. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Steven Judge, August 22, 2006.

132. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Steven Judge, August 22, 2006.

133. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Kellee Tsai, August 22, 2006.

134. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of John Dearie, August 22, 2006.

135. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Vickie Tillman, August 22, 2006.

136. Andrew Browne, "Beijing is Cracking Down on Foreign-Media Access," *The Wall Street Journal,* September 11, 2006.

137. China freely publishes its monetary goals and policies, including details of the "managed float" of its currency against a basket of currencies, the U.S. dollar chief among them.

138. U.S.-China Economic and Security Review Commission, *China's Financial System and Monetary Policies,* testimony of Bradley Setser, C. Fred Bergsten, Peter Morici, August 22, 2006.

139. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of C. Fred Bergsten, August 22, 2006.

140. China's export-led GDP growth rate is due in part to its policy of emphasizing exports over domestic consumption. That is, its workers are expected to labor to produce goods for export earnings rather than to produce goods meant for internal consumption. In addition, Chinese economic policy encourages and even directs Chinese citizens to save, rather than spend, their money. As a result, consumption in China represents less than 40 percent of GDP versus 70 percent of GDP in the United States.

141. The International Monetary Fund estimates China's current account surplus will be $184 billion in 2006 and Japan's will be $167 billion. China's surplus in the first half of 2006 was $92 billion. China's current account surplus is expected to reach $206 billion in 2007. The IMF estimates the U.S. current account deficit in 2006 to be $869 billion.

142. A 2006 study by the Federal Reserve Bank of San Francisco, looking at historical data, shows that a 10 percent change in the exchange rate leads to a 4 percent change in the prices of imported goods in the United States, although changes in other countries run at 6 percent. At lower rates of change in the currency, such as 10 percent, exporters and distributors accept lower profit margins to retain market share. They would likely be less willing to moderate price increases at a currency rate change of 40 percent, for example. Diego Valderrama, "The Exchange Rate-Consumer Price Puzzle," *Federal Reserve Bank of San Francisco, Economic Letter No. 23,* September, 2006.

143. Azam Ahmed, "Dollar Rises on Fed Comments; China is Wary of Pressuring Yuan," *The Wall Street Journal,* August 23, 2006, C3.

144. The IMF has issued several warnings about a disorderly adjustment. Iain MacDonald, "IMF Warns Lingering Imbalances May Spur Volatile Fall in Dollar," *Wall Street Journal,* 13 September 2006, p. A8.

145. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial system and Monetary Policies,* testimony of Peter Morici, August 22, 2006.

146. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Francis E. Warnock, August 22, 2006.

147. U.S.-China Economic and Security Review Commission, *Hearing on China's Financial System and Monetary Policies,* testimony of Francis E. Warnock, August 22, 2006. U.S. Treasury Department survey data of some investment firms purchase and sales of Treasury securities can be found at www.ustreas.gov/tic/s1—41408.txt, but it does not include third party holdings.